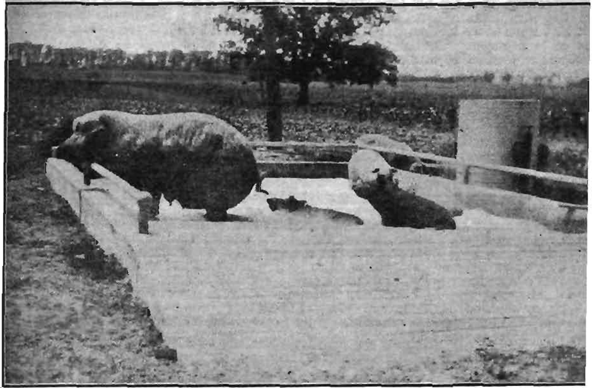

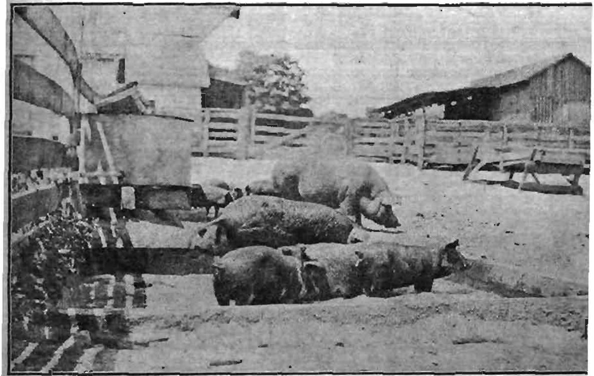

Referred to on pages 363 and 364.

The Journal

OF THE

Jamaica Agricultural Society.

The more people do the more they can do; he who does nothing renders himself incapable of doing anything; while we are executing one work we are preparing ourselves for undertaking another.

VOL. XXI. OCTOBER, 1917. No. 10.

BOARD OF MANAGEMENT.

The usual monthly meeting of the Board of Management of the Jamaica Agricultural Society was held at the Office of the Society, 11 North Parade, Kingston, on Thursday, 20th September, 1917, at 11.30 a.m. Present: Sir Jno. Pringle, K.C.M.G., Hons. R. P. Simmonds and S. S. Stedman; Messrs. R. Craig, A. W. Douet, Jas. Dougall, A. C. L. Martin, E. W. Muirhead, Conrad Watson, R. F. Williams, Rev. W. T. Graham and the Secretary, Jno. Barclay.

Apologies for Absence.—Apologies for absence were submitted from Messrs. A. W. Farquharson, H. Q. Levy and E. E. Melville.

The Secretary intimated that he had received a letter from His Excellency Sir Wm. H. Manning, stating that he was leaving for the United Kingdom, but hoped to be back about November.

In the absence of the Governor, Sir Jno. Pringle, Vice-President, took the Chair.

Confirmation of Minutes.—The Minutes of the previous meeting having been printed, and a copy sent to each member of the Board, were taken as read and confirmed.

Statement of Accounts.—Statement of Accounts was tabled as usual.

Questions.—(*a*) *Cable Quotations.*—Mr. Simmonds asked why in the market quotations furnished by the Direct West India Cable Co., to the newspapers, such important products as logwood and bananas were not quoted.

The Secretary was instructed to draw the attention of the Government to this.

(*b*) *Railway concessions to shippers of Ground Provisions.*—Mr. Graham asked whether the concession on the railway for the shipment of ground provisions to Kingston, had been withdrawn, as he had learned that the concession had been refused that morning on shipments from his parish of St. Mary.

Mr. Stedman said he also had learned that shipments from Orange Bay Station had been refused the concession.

The Secretary was directed to telephone the Director of the Railway asking why this was done as it was understood that the concession had been made until further notice, and no notice of withdrawal appeared to have been given.

The result of the enquiry was that the refusal was due to a misconception, and this had been immediately remedied by instruction to the Station Masters.

The following matters arising out of the previous Minutes were considered:—

(a) *Visits of Entomologist re Black Fly.*—Letter from the C.S.O. *re* visits of the Entomologist *re* Black Fly on citrus trees, was submitted as follows:—

No. 13292-17144. 3rd September, 1917.

"I am directed by the Acting Governor to acknowledge the receipt of your letters C.S.O., No. 42, dated the 20th ultimo, and C.S.O., No. 48, dated the 31st ultimo, relative to the prevalence of Black Fly (Sooty Mould) on citrus trees in certain districts, and to inform you in reply that the Director of Agriculture has been requested to instruct the Government Entomologist to visit the districts in question and to submit a report on the matter."

(Sgd.) D. H. HALL.

Mr. Graham mentioned that he had been told that Carbide waste applied to the citrus trees killed this pest. It was stated, however, that it was "white" and other scales that the Carbide was useful for, not Black Fly.

(b) *Pamphlet on Plant Diseases.*—The Secretary said that as directed he had sent out 50 copies of the Microbiologist's pamphlet on "How to Identify Infectious Plant Diseases" to each Instructor and 6 copies to each Branch Society, and that there had been a prompt request from some Branches for a copy for each member. These he had supplied.

(c) *Lack of Land.*—The Secretary read letters from the C.S.O. and the Agricultural Instructor for S. St. Elizabeth, as follows:—

No. 11654-14632. 6th August, 1917.

"In continuation of the letter from this office, No. 6870-6690, dated the 14th May, 1917, relative to the alleged scarcity of land for cultivation in the Myersville district of St. Elizabeth, I am directed by the Governor to inform you that the Surveyor General, to whom the matter was referred, reports that the survey and plan of the Patent of John Swaby and land attached called "Content," containing together three hundred acres, have now been completed, and it has been disclosed that only fifty-two and a half acres or about one-sixth of the whole, is non-tax-paid; that the non-tax-paid portions are available for rent at 10/- per acre per annum, but only nine persons have rented seven and a half acres, although the Surveyor made it clear that all the available land would be rented."

(Sgd.) ROBT. JOHNSTONE,
Acting Colonial Secretary.

Mr. H. W. Lynch, Instructor for for South Manchester and South St. Elizabeth, under date 1st instant, wrote to the Secretary:

1st September, 1917.

"Yours of the 30th ultimo, with letter from the Colonial Secretary, to hand.

"This is a case in which the Government have made a great mistake. This is very unfortunate at this time when no stone should be left unturned to help the people to increase their cultivation of food crops. When this is the case, the effort of the Agricultural Society to increase food production is nullified.

"To offer the people of Myersville and Russells the fragments of land at Content-forfeited from small settlers-is like giving a child a stone when he asks for a fish.

"The fifty-two and a half acres consist of small lots at different places which in the aggregate amount to fifty-two and a half acres. Small lots have been taken from settlers at random in lots of from one to four acres. Then Content is Savanna land, which cannot yield a crop except it is heavily mulched. Should people five miles away rent such lands, they would not be in a posititon to cultivate it as it ought, and so would not be able to reap a crop. The first blast of dry weather would destroy all they put in.

"The fact is, the land in question does not suit the people in Myersville. Of course, these mistakes happen because, men in office looking at a map can form no idea of the character of the land.

"When land like this is offered to the poor people and they cannot avail themselves of it, they are blamed, when it is not their fault.

"If they will sell the bits of land, the people in the adjoining holdings may buy to get the wire grass to mulch their holdings."

(Sgd.) H. W. LYNCH.

Mr. Craig said that at the previous meeting it had been decided, the Governor approving, to let this matter of scarcity of land for planting lie over unless the matter took a serious turn.

It was agreed, however, to discuss the matter as it was in continuation of a special case which had already come before the Board.

After discussion, Mr. Martin and Mr. Muirhead—*as the matter* concerned their districts—were asked to visit the land and report and they agreed to do so.

Instructors Committee.—The Reports of the Agricultural Instructors for the month of August were submitted as usual and referred to the Instructors Committee.

The Secretary said that the Instructor for Portland had now suggested that the Cottage Holdings Competition which had before done such good might now be continued as conditions were improving so quickly. The prize money would be furnished locally, and he had in hand a subscription of £5 given by His Excellency the Governor, two years before. It was approved that the Competition might go on.

The Secretary said he had reports from the Instructors on the production of food crops as compared with normal years, given in percentages. All the reports, however, had not yet come to hand. He would publish these in the JOURNAL. They were very satisfactory.

Produce Protection Law.—The Secretary submitted letter from the C.S.O. as follows:—

No. 12636-14950. 23rd August, 1917.

"With reference to the correspondence ending with the letter from this Office Nos. 7048/7488, dated the 8th June, 1916, I am directed by the Governor to transmit herewith for the information and consideration of your Society, copies of—

(1) A Bill entitled "A Law to consolidate and amend the Produce Protection Laws," which has been drafted by the Attorney General;

(2) The Bill to further amend the Produce Protection Law, Law 31 of 1903, which was withdrawn at the last sitting of the Legislative Council; and

(3) The amendments to the latter *Bill* proposed by the Hon. S. S. Stedman, and to say that His Excellency would be glad to be informed whether your Society, has any further suggestions to make in connection with the matter, and particularly whether the Society would recommend the adoption of the amendments proposed by Mr. Stedman.

2. I am to ask that all these enclosures may be returned in due course."

(Sgd.) ROBT. JOHNSTONE,
Acting Colonial Secretary.

After discussion it was resolved to refer the papers to a Special Committee consisting of Messrs. Stedman, Martin, Craig, Simmonds, Muirhead and Graham.

Contagious Diseases Animals Law.—The Secretary read letter from the C.S.O. as follows:—

No. 18212-15580. 31st August, 1917.

"With reference to the correspondence ending with your letter C.S.O., No. 7, dated the 23rd April last, I am directed by the Governor to forward herewith for

the information of your Society a Copy of Law 23 of 1917 entitled "A Law further to amend the Contagious Diseases Animals (Inland) Law, 1909 (Law 1 of 1909)" which has been passed by the Legislative Council."

(Sgd.) ROBT. JOHNSTONE,
Acting Colonial Secretary.

He was directed to circulate this to the members of the Board.

Plant Diseases.—Letter from the C.S.O. was submitted forwarding reports to date on the treatment of the Black Weevil Borer of Bananas. These reports were directed to be circulated as usual.

The Secretary submitted papers on Coconut Diseases which had been circulated with the members' remarks.

It was recommended that the whole matter of Coconut and Banana Diseases might be referred to the Imperial Department of Agriculture for the West Indies, for further advice as to the steps to be taken to control these diseases, and that the Microbiologist's lectures be continued in suitable districts. It was held that the most intelligent persons could now diagnose the chief diseases of bananas and coconuts, but it was now the duty of the scientific staff to state the cause, and recommend a definite system of rational treatment, as at present the treatment was largely experimental.

The Secretary was instructed to forward these suggestions to the Colonial Secretary.

Letter from the Hon. H. Cork, Park Mount, Port Antonio, was read as follows:—

1st September, 1917.

Gentlemen:—

"I have for the past two years most carefully observed the coconut cultivation of Jamaica, and have watched with interest the steps that have been taken by the scientific side of your Society, to deal with diseased coconut plants.

My observations extend right along the North coast from Morant Bay to Montego Bay, and I have personally inspected several of the large coconut groves, and have come to the following conclusions:—

1. That the majority of coconut trees stated to be affected by "Bud Rot" have been severely battered by heavy wind or hurricane, and the broken boughs have not been immediately removed, thus leaving an opening to the heart leaves to allow moisture to collect in the heart, eventually inducing "Bud Rot", which might have been prevented by timely attention to the injuries.

2. In the case of leaf disease, from the cases I have seen, it is due to bad planting, bad drainage, and bad cultivation, and wherever ordinary care has been taken of the plants, they themselves have thrown off this disease.

These questions should be gone into thoroughly, because a lot of planters have been caused great anxiety and expense, which I believe in some cases to have been unnecessary, and in others misapplied in so far as the real cause of the trouble has not been cured."

(Sgd.) HENRY CORK.

This letter was directed to be attached to the other papers on the subject, for reference.

Commercial and Industrial Policy of the Empire.—Letter from the C.S.O. was submitted as follows:—

No. 13859-S.S. 229. 13th September, 1917.

"With reference to previous correspondence on the subject of the Commercial and Industrial Policy to be adopted by the United Kingdom after the war, ending with the letter from this office, Nos. 4291-4706, dated the 28th March last, and with special reference to paragraph 1, of your letter, C.S.O., No. 140, dated the 2nd March, 17, I am directed by the Acting Governor to inform you that the Secretary of State the Colonies has pointed out that in paragraph 6 of the report made by the Special ...ttee of the Board of Management of your Society reference is made to the ... position occupied by Jamaica products in regard to French Customs

fr... land, miles a... and so w...

duties, whereby Jamaica products come under the maximum tariff, but that he (Mr. Long) understands that the minimum French tariff has for a considerable time been made applicable to the products of British possessions, and that it has been made applicable to Jamaica by the Convention dated the 8th August, 1902, copy enclosed, which please return, which appears to cover all products of the Colony other than sugar and its derivatives and tobacco.

2. "Mr. Long has stated that he would therefore be glad if he might be furnished with a full explanation of the present grounds for complaint and with any suggestions with a view to their remedy, and I am accordingly, to say that His Excellency would be glad to receive the remarks of the Committee of the Board of Management of your Society, in co-operation with the Committee of the Merchants' Exchange which dealt with the matter."

(Sgd.) G. M. WORTLEY,
Acting Colonial Secretary.

The Secretary stated that the copy of the tariff convention sent, specified almost all the products of Jamaica except the most important —fruit; bananas, oranges and grapefruits were not mentioned.

He was directed to associate himself with Mr. R. S. Gamble of the Merchants Exchange, and point out this to the Government.

Loan Banks.—Letter from the Hon. H. Cork was read as follows:—

1st September, 1917.

Gentlemen,

"I beg to enclose copy of a letter I thought it right to address to Mr. C. C. Anderson, with reference to the Agricultural Loan Banks.

I am quite convinced that if the Agricultural Society and the Agricultural Loan Banks do not work together that it will be a serious disaster to Jamaica. The failure of the Loan Banks must cripple the development of the small holders' lands."

(Sgd.) HENRY CORK.

Copy Letter to Mr. C. C. Anderson.

1st September, 1917.

"It has been brought under my notice that some of the local Agricultural Loan Banks are lending money for the discounting and shaving of papers, and not for the purpose of increasing or improving the cultivations and the land.

The matter, I think, should be enquired into, and if necessary, the Law should be amended to prevent this, otherwise the road to disaster is wide open."

(Sgd.) HENRY CORK.

A copy was directed to be sent to the Agricultural Loan Societies Board at once, as it was meeting in the afternoon, for their observation.

Importation of Queen Bees.—Letter from the C.S.O. was submitted as follows:—

No. 13030-16525. 29th August, 1917.

"With reference to the correspondence ending with the letter from this office, No. 4692-5857, dated the 5th April last, I am directed by the Governor to inform you that the Bee Inspector has brought to notice through the Director of Agriculture, that a disease nearly resembling the Isle of Wight Disease now exists amongst bees in the United States of America, and I am to say that on the recommendation of the Director of Agriculture His Excellency has approved of the embargo against the importation of Queen Bees from the United States remaining in force for the present."

(Sgd.) ROBT. JOHNSTONE,
Acting Colonial Secretary.

The Board endorsed the restriction.

Coffee Embargo.—The Secretary said that he had had letters from coffee growers on this subject, and a memorial forwarded by the Port Royal Mountains Branch signed by numerous small coffee growers. As the Governor was leaving for England he had written him on the subject. His Excellency replied that he would see the Secretary of State for the Colonies on this subject immediately on his arrival.

Mr. Stedman said that strong recommendations should be sent to the Secretary of State not only on behalf of coffee but also cocoa If it was a lack of tonnage that was the difficulty, they had a Royal Mail Steamer coming here every month, and because of the embargo on rum and coffee, and the restrictions on cocoa, these steamers would not get enough cargo to fill their space.

It was resolved to appoint a small Committee consisting of Messrs. Martin, Muirhead and the Secretary to associate themselves with Mr. R. S. Gamble to make representations to the Colonial Secretary and ask him to cable the Secretary of State that as cargo space was available on steamers coming here permission might be given to ship coffee so far as such space was available.

The Secretary was directed to move in the matter at once.

Neglected Juveniles.—The Secretary submitted the papers which had been last before this Committee including a draft Law. This had not been seen by all the Committee. Mr. Cork who was Chairman, had resigned as Chairman and as a member of the Committee, and apparently Mr. Bertram also. It was resolved to complete the work of this Committee and then send on the papers to the Goverment. Mr. Graham was appointed Chairman.

Branch Societies.—Letter from Turks Island was submitted, stating that the number of Journals sent them was hardly sufficient for their needs in view of the number of scattered settlements to which Journals have to be distributed.

It was resolved that as the Branch was not in Jamaica and the membership was so large, the actual cost per copy of production of the JOURNAL should be paid, the first 50 copies being supplied free.

Veterinary Course.—Resolution from the Castleton Branch was submitted as follows:—

"That owing to the serious inconvenience and loss felt by small stock owners and breeders in the remote districts from time to time principally due to lack of obtaining veterinary advice, the Branch takes the opportunity to respectfully ask the Board of Management of the Parent Society to consider the necessity of sending a certain number of responsible men recommened by Branch Societies each year to Hope to receive instruction in drenching and general local treatment of stock from the Government Veterinary Surgeon, such instructions to be given free; the recipient, of course, bearing his personal expenses."

The Secretary said he had forwarded this to the Director of Agriculture for his observations, and he had received the following letter in reply:—

No. G., 607. 10th September, 1917.

"In reply to your letter of the 5th instant as to the holding of a course of instruction in Veterinary work at Hope, I regret that it does not appear practicable to provide for this at present.

"There is no accommodation at Hope available for the men from the Branch Societies, while special remuneration would be necessary for Dr. Tavares, whose contract with the Government does not provide for such work as this.

"I consider that the best way of disseminating useful knowledge on veterinary matters would be by travelling demonstrations, and I have long had such a scheme in mind. When funds are available and our staff again normal something can be done in this direction."

(Sgd.) H. H. COUSINS,
Director of Agriculture.

The Secrerary was instructed to forward a copy of Mr. Cousin's letter to the Castleton Branch.

Free gifts of Foodstuffs.—The Secretary said that the Swift River Branch in W. Portland, had made a free gift of foodstuffs to the poor in Kingston consisting of breadfruits, bananas, canes and oranges. These he had arranged to be brought on free by the Railway and handed over to the Kingston Charity Organization to be distributed at their Soup Kitchen. More supplies were coming from the same Branch and other Branches in W. Portland had also arranged to do likewise. He was instructed to thank the Branch for their generosity.

Clarendon Agricultural Show.—The Secretary said that the Secretary of this fund had handed over the amount of £21 7s. 6d., being balance at credit of the Clarendon Agricultural Show Fund, asking him to take charge of it along with the Instructor for the parish, and to utilize it according to the decision of the local Committee for the good of the parish. He had lodged the amount with the Society's funds.

Cultivation of Peanuts.—The Secretary submitted a fine sample of peanuts grown in the Red Hills of St. Andrew, and suggested that it would be a good idea to let teachers with the best School Gardens have some good seed to raise, and thus distribute the seed and encourage more general cultivation. A grant of £2 was given for this purpose.

Authorized Persons.—Application for the appointment of John Gobredan, Gray's Inn, Annotto Bay, as an 'Authorized Person" was submitted from Mr. K. Mallet-Pringle, Annotto Bay, and directed to be forwarded to the Inspector General.

Letter from the C.S.O., *re* addition to Special Committee was read as follows:—

No. 12338-14903. 17th August, 1917.

"I am directed by the Governor to acknowledge the receipt of your letter, C.S.O., No. 38, dated the 30th ultimo, suggesting that the Special Committee appointed to consider the whole matter of the Law relating to "Authorized Persons" (Law 4 of 1909) should be added to by the appointment of Messrs. W. Cradwick and T. Powell, Agricultural Instructors, and Mr. W. A. Duffus, Clerk of the Courts for St. Mary, and to inform you in reply that His Excellency sees no need to increase the personnel of the Committee as suggested, but that on the recommendation of the Chairman of the Committee His Excellency has approved of the gentlemen named appearing before the Committee to give it the benefit of their experience."

(Sgd.) ROBT. JOHNSTONE,
Acting Colonial Secretary.

War Gifts.—Report on the 50th and 51st shipments was submitted (see page).

Applications for Affiliation.—Applications for affiliation were submitted as follows:—

(a) Liguanea (St. Andrew)
(b) Rose Hall (St. Elizabeth)
(c) Linstead (St. Catherine)
(d) Snowdon (Manchester)
(e) Yallahs Valley (St. Thomas)
(f) Camberwell (St. Mary).

On the recommendation of the Instructors Committee all were affiliated with the exception of Yallahs Valley and Linstead, the former being held over until further information was obtained, and the latter to await Mr. Campbell's report with reference to the district.

New Members.—The following new members were elected:—

S. R. Cargill, Solicitor, Kingston.
George Cox, Golden Grove, Hampden.
Lewis Floissac, St. Lucia, B.W.I.
George Glasgow, St. Lucia, B.W.I.
Robert Kerr, Ocean Beach, Cuba.
D. E. Crawford, Newport.
Miss J. Bovell, Half-way Tree.
Dr. C. W. Richardson, Kingston.
G. H. Dalrymple, Spanish Town.
A. A. Kenedy, B.A., Williamsfield.
George A. Goubault, Annotto Bay.
Ernest A. Deems, Bocas del Toro, Panama.
The meeting adjourned till Thursday, 18th October, at 11.30 a.m.

———o———

THE FOOD SITUATION.

ISLAND CAN PRODUCE GRAIN CROPS TO COPE WITH SITUATION.

RICE.

The authorities are faced with the problem of keeping up and increasing the native food supplies of the island and the problem is engaging the attention of all thinking men at the present time. The necessity for great activity in this direction will remain with us for some years after the war. I cannot believe that times of plenty and prosperity will return immediately on the cessation of hostilities, and therefore it behoves us to think of the future, "the needs of to-morrow," as His Excellency Sir Wm. Manning puts it.

It should also be borne in mind that Jamaica is subject to periodical hurricanes which do much damage to food crops, and one of these may occur at any time, especially in the latter half of the year, and retard if not altogether cripple our efforts, leaving us in a dangerous condition.

The large corn crop we have just reaped for this year's spring planting ought to teach us a lesson. Why should steps not be taken to ensure the planting out of five or even ten times the area planted last spring at the next planting which commences in February and goes on till the end of April. In the United Kingdom, farmers are compelled to plant out given areas of lands in food crops and there is no reason why the same should not be done in Jamaica in connection with maize corn and cowpeas which will give good crops between the rows of corn.

Then the possibilities in Jamaica for growing rice have never been seriously considered until very recently when the Society took it up in the Western parishes. Here is a splendid food crop capable of storing for indefinite periods and capable of development fifty fold.

The extensive cultivation of rice does not displace any other industry and every shilling gained from it is a direct addition to the wealth of the island.

Hurricanes do not affect the crop in the same way as it does yams and bananas and one is able to guage to a nicety in terms of bushels and quarts the amount of it stored and also how long it can last.

Rice is not a substitute for something else, but the consumer of imported rice will have his native article, the only noticeable difference being its richer flavour.

The possibilities of the island in the growing of grain crops are great, but development is tardy along these lines. If we had hundreds of thousands of bushels of native grain stored away in safety, we need have no fear of a hurricane leaving us in a starving condition.

There is no guarantee that there will not be other wars after this and we should not wait till their effects are felt, to remedy them, but should take precautionary measures so as to be prepared to meet them.

Overproduction of grain crops is impossible in Jamaica in view of the amount of American grain imported into this country, and the only result of very large increases in our grain crops would be the desirable one of diverting the monies now going to foreigners into the pockets of native growers.

While some development has taken place within the last year in rice growing, it is nothing like what there is room for. We have the land and the local consumption to ensure a good market. Here are some particulars which some enquirers have been asking for.

(1) That a yield of as much as 40 bags to the acre has been reaped here under favourable conditions of soil and weather. With care 20 bags to the acre can be put down as a fair average yield.

(2) A bag of rice containing 80 quarts weighs 160 lbs. or the same as maize corn.

(3) 100 quarts of bran weighs 150 lbs.

(4) 100 quarts dahn rice in husk wieghs 175 lbs.

These weights are slightly variable in ratio to the degree of drying the grain has had.

Best of all rice is a hurricane proof crop.

R. C. SOMERVILLE.

(This was written and in type before the storm of 23rd September. (ED.)

Anyone desirous of taking up rice cultivation in the coming season shou'd at once communicate with us and let us know the quantity of seed they require or even the acreage they propose to establish. Seed would have to be ordered within the next month for the coming crop and we should like to have an estimate of the quantity to be ordered. Apply to the Secretary.

—:o:—

ST. ANDREW AND WESTERN ST. THOMAS.

STORM DAMAGE AND SUGGESTIONS FOR PLANTING.

At present there is still a good supply of corn, and more cornmeal is being manufactured in the country than ever. There is a large acreage under sweet potatoes, and about 50% of the yams will be harvested. There will also be a good supply of cocoes (tania). The

situation for the next 5 or 6 months, therefore, though far from being rosy is not very gloomy. Unless, however, universal and extraordinary effort be immediately put forth there will be starvation during the spring and early summer of next year.

(1) Yam poles should be promptly put up again. New branches, vines and leaves will then appear, and in spite of reduced bearing, plants will be preserved.

(2) There should be more and more extensive planting of sweet potatoes.

(3) Up to about 1,000 feet above sea level cowpeas can be cultivated at this season quite successfully.

(4) The conditions are universally favourable to the growing of red peas which can be planted up to about the middle of December.

(5) In all localities where even light showers may be expected in January corn can be planted throughout October.

(6) The following crops with the exercise of proper judgement can be grown together:—

(a) Corn with cowpeas or red peas between the rows.

(b) Sweet potatoes with red peas on the banks and corn at 6 feet apart.

(c) Sweet potatoes and cowpeas, or red peas.

(d) Cowpeas or corn can with profit be grown among bananas.

(7) On well manured plots, or on well tilled fertile land Irish potatoes can be grown everywhere.

(8) The time is opportune for the growing of all kinds of green vegetables—cabbage, carrot, turnip, tomato, etc., as well as chochoes and pumpkins.

(9) Provision cocoes are among our quick growing plants, and should be planted in open fields, as well as among bananas and catch crops.

All the peasants should plant each even a few hundred cane tops. Sugar cane is good for man and stock, and will greatly lessen the effect of reduced rations, while combines can be formed all over the Island by peasant proprietors, and mills purchased for the manufacture of sugar.

A. P. HANSON,
Agricultural Instructor.

Stony Hill,
1.10.17.

———:o:———

WHAT IS TO BE DONE IN ST. MARY?

(By Mr. W. Cradwick.)

Naturally in a parish so largely dependent on bananas as St. Mary, which has hitherto produced about 25 per cent. of the world's supply of bananas, the fact of the crop being destroyed three years running, and having previously suffered such setbacks as the hurricane of 1912 and the drought of 1914, to say nothing of the vagaries of the purchasing companies when the fruit was plentiful and of excellent quality in 1914, the question of whether it is worth while to continue to plant bananas or look for an alternative crop is one which is giving many planters a great deal of concern.

The damage to the coconut and cocoa trees at the same time also

raises doubts in their minds as to the advisability of planting banan... which were largely used as nurse crops for cocoa and coconuts.

If banana cultivation is to give place to some other cultivation it will be nothing new in the history of this parish, and although the transition stages are times of stress and worry to planters, we can always remember that if one crop fails us we still have the magnificent fertile soils of St. Mary waiting for another.

It is a good thing to look back to the changes which have already taken place in the staple crops of this parish. At one time cocoa, then indigo, then sugar cane, now bananas. Whether bananas have to give place to sugar cane or some other crop is a hard matter to be positive on, at any rate those bananas that we have if they are to be looked after at all should be looked after at once.

In starting with the ratoon fields, it should be remembered that we are now in the month of October and it is practically impossible with the majority of them to expect to produce first class fruit before the spring of 1919. The method which should be adopted now is to leave all the stems which have a prospect of producing even an inferior bunch in the autumn of 1918, which although it may not be shippable fruit, and even if it were, would be in poor demand at low prices, would be available for food in Jamaica, and if the war continues and ships and imported foods are scarce these should prove a great blessing. Followers can now be selected for the spring crop of 1919 and the fruit reaped from the mucb damaged stems should not interfere with this in any way.

Our plant bananas although badly damaged should give us fruit in sufficient quantities to warrant purchasers bringing their ships here not later than June, 1918. There may be sufficient fruit to warrant ships calling at St. Mary a month or six weeks earlier than that, so much depends on the seasons from now up to the spring of next year.

Every effort should be made to utilize the space between the bananas for planting peas, cocoes and any other crops which will not interfere with their growth.

I am glad to say that during the past year there has been a tremendous increase in the planting of cocoes through bananas which interfere in no way with their growth and give a great deal of good wholesome food.

With regard to Coconuts.—With regard to coconuts, the damage to coconuts in this parish is not severe, but there are spots where it approaches this. For instance, I saw some very fine young trees on one property which had the appearance of having their young leaves chopped off low down in the heart with a cutlass. In other places the heart leaves had been twisted and banged about in such a way that these should be removed with a cutlass.

In all such cases when this is done the mid-rib of the leaves should be cut off smooth and tarred and as a precaution two quarts of Bordeaux mixture should be thrown into the hearts.

Young coconut trees which have been badly shaken by the wind should have the earth replaced around their bases so as to cover up the exposed and broken roots.

With regard to cocoa, they should have the fallen bananas and other debris immediately removed from them, broken limbs cut off

ment will depend on the severity of the damage and the weather for the next twelve months, always remembering that good and careful root cultivation is necessary for quick recovery from storm damage.

There is not much coffee in this parish and usually it does not get severely damaged except in very exposed situations.

After attending to these staple crops as quickly as possible the next urgent matter is to plant such quick producing food crops as corn, peas and sweet potatoes, the latter cannot be planted through bananas, but peas can, and in many places corn, and every acre of bananas can be planted in cocoes which will give food in 8 or 9 months and enable us to sell all the good bunches of bananas when they come in, while we eat the cocoes instead of having to eat the bananas.

W. CRADWICK,
Agricultural Instructor.

Highgate, St. Mary,
October 1, 1917.

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NAPHTHALENE.

DIRECTIONS FOR USING.

Use barrels or closed boxes—never use bags. Dry the grain thoroughly in the sun for 6 to 12 hours, or if not wanted for seed, in a slow oven; then cool it.

Divide naphthalene into lots of one dessertspoonful, and tie each lot in a bit of muslin rag. At the bottom of a barrel put one of these bundles, then put grain half way, then another bundle of naphthalene, and fill up rest of barrel with grain. Cover the barrel with paper, and on top put a wooden cover with a weight. At end of three months throw out corn, fan out the dust, and replace as before with fresh naphthalene if necessary.

If bins are used, allow at the rate of one dessertspoonful naphthalene to one bushel of grain.

N.B.—If the grain is already attacked by weevils, use carbon bisulphide (see July *Journal*) to kill weevils, then store with naphthalene.

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KEEPING CORN.

One of the causes for corn going bad when kept is because it is put up hot from the sun. Put your hand in a barrel of corn put up in this way and try the heat. We have known it almost red hot and this causes the corn to crumble away. Always take care after drying the corn in the sun or in a dryer, to cool it before putting it away.

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ECONOMY.

Economy does not necessarily mean not spending money. Economy of time and labour and land are here written of.

* * * * *

Under present day conditions, strict economy, not only of time and money, but incidentally of labour, should be practised by everyone. No where is this more necessary than upon the small holding. Having been the round of a number of holdings lately, ways to me in which this economy might frequently be effected.

the room they occupy, and it becomes every prop
those who complain that land for cultivation is scarce) to ma careful survey of his plantation, and to mark those trees or b which are worthless. If they cannot pay for the space they oc or help in some way to make up for the cost of their upkeep, the sooner they are removed the better. Trees that are not usef shades, wind breaks, etc., should be made to 'carry' such clir as beans, chocho, or sarsaparilla.

2. Avoid unnecessary waste of time and energy walking a the cultivation with nothing definite before you. If you are eng at this corner of the field and are obliged to leave for the other, s thing definite should take you off.

3. To avoid No. 2 leave home in the morning fully de what shall be the order of the day (other things being equal) when you get to the field get about doing it.

4. Start for your work in the early morning (before day if n sary) and set to work before the sun gets hot. You do a better work starting at 6 and resting off at 10 than beginning at nine. the sun is too hot rest off under a cool tree if you have not a "] (and you should always have a hut if the field is far from home. know how convenient it is.)

5. While resting in the cool (you may be smoking your if you like) but at the same time be busy attending to the tol cut the other day, or selecting your seed corn or "bitting" the or cocoe heads, or planning how to proceed when you get up. I mean to convey is, *be doing something*. This is not the tir indulge in a short mid-day nap.

6. On your way to work in the morning, "salute no one b way." The best working hours slip by in this way, and yo never any better for such a luxury.

7. Don't leave the small potato, cocoe, and corn in the to feed the rats and mongoose. Take them home. They co handsomely for the pigs and the fowls.

8. Get at the weeds early. You have better results, more money and time if they are taken out before they seed.

E. A. GUNTER.

AWAY WITH WORTHLESS FRUIT TREES.

Now is the time to take stock in the grove and field and g andto weed out the trees that are doing no good. Read the a on this point given below.

There are trees in almost every estate and holding and field are not worth the room they occupy, and it becomes every ow a garden therefore to make a careful survey of his trees, and to a note of those trees or bushes which are worthless. The s these are grubbed up the better.

But then comes a question—Can new trees be safely plan ground that has been previously occupied by old ones? The There is no reason whatever for the newly-planted trees suffer any way; except, of course, where they follow miserably

In cases of this kind, the surrounding ground is likely to be infested with such pests, and should therefore be skimmed and burnt; and for preference it should be cropped with peas and beans before being utilised for the cultivation of other economic trees again.

Another point. It is obvious that old trees impoverish the ground considerably; therefore before new ones can be successfully grown, it will need to be thoroughly well trenched and given a heavy dressing of farmyard manure. Then it will be in a fit condition for the planting of any ordinary crop.

We strongly advocate grubbing in the autumn, as if left until early in the year you can't get on with any planting until late in the spring, when time can ill be spared. In addition, the plants are given less time in which to become thoroughly established before the drying winds of March and the hot summer arrive.

The above is advice given by that excellent little paper *The Smallholder* of London, and has been slightly adapted to suit Jamaica.

Do not allow useless trees to cumber the ground. Make all your trees pay for their keep, and give you a profit.

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MANURE.

Manure is the hardest thing to get in Jamaica in quantity, and yet it is much wasted. We are trying to scrape up what we can from horses, cows, rabbits and fowls, but there won't be enough to manure a good sized garden let alone manuring a field for crops of potatoes and corn. Jamaica must have had wonderful soil to start with as crops have been grown and grown year in and year out for scores of years in the same place with not a scrap of manure, and yet we still look for good crops.

Fallowing land for a few years works fairly well for a time, but it takes a large area of land to keep cultivations going so that one may throw up so many acres to grow grass or bush for several years.

Every head of stock on a small holding should be kept so as to save manure for the land.

In St. Mary food crops are being grown commonly through bananas this year, but this cannot be kept up or the bananas will not bear well.

Think over the problem of how to make the land better and better instead of poorer and poorer. What about the heaps of wood-ashes spoiling at the back of the house?

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RATS.

With corn and other products to store we should again remind ourselves to set on foot (if we have not done so already) an active campaign against rats and mice.

Set different baits, set different poisons from time to time, and change the method of poisoning.

The E.X.O. poison which we have tested for years and constantly recommend is one of many that we have experimented with and found

Remember not to handle poison or baits any more than absolutely necessary.

Directions for using E X.O.—Spread freely on fresh buttered bread or fish, cut in small squares, lay in or near holes and runs. This rat poison may be used effectually without bread or butter; roll size of small nut, place where wanted. Cornmeal, ripe bananas, roasted coconut, ground pumpkin seed or roasted sweet potato may also be used as the bait with a smear of butter or lard. Rats being keen of smell, do not spread with the hand.

The P. A. Benjamin Manufacturing Co. put up a local rat poison which is well-spoken of as very effective.

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COMPETITION IN E. PORTLAND AND E ST. THOMAS.

A successful competition has just been carried through in the Thornton district of E. St. Thomas, viz., for fields of ground provisions, the main object being to stimulate and increase food production. The prizes were put up by the Thornton Branch Society. The results were very satisfactory.

A Corn Growing Competition is just started at Arcadia in E. St. Thomas also and promises well. It is hoped that a Cocoa Growing Competition on the same lines as that just completed in St. Mary will be carried through during the next nine months in E. St. Thomas; work on the holdings has begun already. E. Portland is also ready to go forward with the Cottage Prize Holdings Competition again during the next 6 or 8 months. A cane field competition is being arranged at Whitehall in St. Thomas, whilst Nonsuch Branch in Portland, is hoping to put through a Vegetable Garden Competition by March or April. Others are expected to be arranged shortly. These small competitions seem more effective than big Shows in helping to keep Branch Societies strong, active and interested.

(Sgd.) L. A. WATES.

Agricultural Instructor,
Long Bay P.O.

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CORN GROWING COMPETITION.

In a local Corn Growing Competition in connection with the Waldensia Branch Society in Trelawny, the judging of which took place the end of the third week in August, the results were very good although conditions during the period were not of the best. The area for competition was 2 squares and prizes were offered by the Branch for the largest yield. Mr. T. Beckford won the 1st prize with a yield of 11½ bushels, at the rate of 56 bushels to the acre. Mr. D. East came second with 10 bushels 13 quarts. One competitor, Mr. J. Whitely, only had a return of 5 bushels 28 quarts, but his field was troubled very badly with rats, and during the time the Competition was on he killed on his field and neighbouring fields 162 of

PARANAPH.

It is remarkable how few people are aware of the varied usefulness of this soft soap preparation put up by the Department of Agriculture though we have often referred to it in the JOURNAL and in correspondence.

In order to again bring it before the notice of JOURNAL readers we, with the permission of the Department of Agriculture, publish below an up to date adaptation of a pamphlet by Mr. E. J. Wortley, F.C.S. (now Director of Agriculture of Bermuda) published by the Department some years ago. We have entirely deleted the paragraph on paranaph as a tick wash as so much has already been published in the JOURNAL and otherwise on that subject.

We ourselves find paranaph so necessary that we are never without it. It readily cleanses the hands of grease or tar spots without any objectionable sequels, and we have even employed it in taking spots from clothing.

1. *Introduction.*—Paranaph is a special preparation of kerosene oil, soft-soap and naphthalene that may be used with success in combating such pests as fleas, scale-insects, green-fly and ticks. The mixture resembles soft-soap in appearance and can readily be dissolved in water either cold or hot.

It is manufactured on a comparatively large scale at the Government Laboratory and may be obtained there at 3d. per lb., or at the Office of the Agricultural Society in Kingston in small quantities at 4d. per lb. In bulk, it will be sent freight free from the Laboratory to any Railway Station.

Much labour will be saved and disappointment prevented if the remedial measures suggested in the following paragraphs are adopted early, and if regular applications of this insecticide be made until the pest is under control.

2. *For Killing Fleas.*—*The floors* of rooms infested with fleas should be thoroughly scrubbed with a mixture of 1lb. of paranaph to 3 or 4 gallons of water. A kerosene tin may be used as it holds four gallons. Or a small quantity of the paranaph may be dissolved in the cleaning material every day and so applied to the floor, though the former method is much better.

As fleas lay their eggs in the dust in the crevices between the boards and in dirty corners, these should be well swept before the application of the paranaph and the refuse matter should be collected on a piece of paper and burnt.

Fleas on dogs may be destroyed by washing the animals with paranaph. Rub the soap on to the animals' coats, adding sufficient water to make a thick later; let this remain for about twenty minutes, or longer, and then wash off.

3. *For killing Scale-Insects and Green-Fly.*—(a) *Scale Insects.* Paranaph used at a strength of 1lb. to four gallons has proved successful in the treatment of some of the more vulnerable scale-insects, e.g., scale on mangoes, rose bushes, etc., It cannot however, be regarded as a specific for the White Scale (*Chionaspis citri*) or the Black Fly that do so much damage to Citrus trees, or as injurious to the different kinds of mealy bugs found on pine-apples, canes and many garden plants.

(b) *Green-Fly or Aphis.*—These small and active, sucking insects are readily kept under control by Paranaph at a strength of 1lb. to 5 or 6 gallons of water. It is very serviceable for use on Cucumber and Tomato plants when affected by these mites.

Application.—The wash is best applied to the above mentioned insects by means of a hand-syringe or spray-pump with a fine nozzle.

Plants will, however, be satisfactorily treated if a thick brush (e.g., a new white-wash brush) is dipped into the diluted solution and shaken over the plant so that a *fine* spray falls on to the adherent insects. If necessary, repeat the spraying in from one to three months.

Where only a few plants are attacked, as in a flower garden, especially when the insects are confined to the stem, a cloth should be dipped into the solution and rubbed over the bark first.

Do not water the foliage for three or four days after treatment, and if a shower of rain falls soon after, the spraying may have to be repeated.

4. *For Lice.*—(a) *Fowl Lice.*—1lb. Paranaph, 3 gallons water. Spray the fowl turning up feathers so that the solution soaks the small downy feathers and wets the skin. Spray all cracks and crevices in boxes and houses with the same solution. Repeat in 3 to 8 weeks if required. It may be used as above for *fowl ticks* in buildings and is a sure preventive if properly applied.

(b) *Hog and Goat Lice.*—In the same strength with the addition of two tablespoonfuls of jeyes it is useful for washing goats and pigs for lice.

5. *Stinging Ants.*—Dissolve 1lb. Paranaph in three gallons of water on the boil. Water the nests with the boiling liquid and spray it over their haunts. Stinging ants are often troublesome in the house, but with a few applications as above they will soon quit.

Note.—Paranaph applied in this manner is injurious to plants.

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QUICK-GROWING FOODSTUFFS.

"IRISH POTATOES."

The foodstuffs that can be grown quickest in Jamaica are "Irish" potatoes and red or white kidney beans—the familiar "red peas" and "white peas" as they are usually called in the markets. From planting to maturity the crops take ten to twelve weeks according to district. Both are comparatively tender crops, i.e., in contrast to other tubers like sweet potatoes, and other peas like cowpeas, and are more sensitive to weather conditions. They must be planted strictly according to their particular time for planting in each district, and this varies with the altitude. Sweet potatoes have a greater range of soils and seasons and can stand rough treatment—such as badly prepared soil, too much wet weather, or a great deal of dry weather. Sweet potatoes, however, take five months in the quickest growing districts to be ready for table (although a few of the most forward can be eaten at four months) and in many districts seven months.

"Irish" potatoes are recommended as a quick growing food crop at this time, to those who will take care in the preparation of the soil, and the cultivation which must follow. It is a food that is appreciated on most tables, and it can be planted *in the lowlands* with the

best results in November, after which good seasons usually follow to allow of the crop maturing without being affected by the very dry weather which often begins in January and ordinarily prevails in February. Potatoes can also be planted in December and January in seasonable districts, or in garden patches which can be watered. Even in districts which are usually dry in January, a heavy mulching between the rows will enable a December planted crop to mature at the end of February.

The first thing to impress upon intending growers is that being a quick growing and highly prolific crop, potatoes require all the conditions to be made as favourable as possible; as we have stated, the kind of cultivation and planting usually given to sweet potatoes and cassava, would result in no crop of "Irish" potatoes.

Soil and Treatment.—Any soil except the stiffest clay will grow potatoes so long as it is broken up thoroughly. The soil if not naturally rich will require to be made rich by manure, and the quantity of manure available will limit the crop to be grown.

It is not good to prepare the land hastily just at the time of planting, and raw land, if not virgin soil, cannot be prepared at all in that way. Old pasture land is first rate for potatoes, but requires to be turned over two or three months ahead of planting to let the turf rot, when this makes excellent manure.

First, then, turn over the land roughly, and let it lie in the rough to be weathered by rain and sun. Clods will usually crumble readily with two to three weeks exposure, and so save labour. Then refine as much as possible. If plenty of manure is available, spread it over the land before refining. If manure is scarce, keep it to apply in the drills or furrows.

Manure.—The kind of manure to use, requires consideration. No rough or coarse strawy stuff should be used such as comes fresh from stables. Such stuff would keep the land too open and would not rot and be available for plant food for months after. Nor should fresh horse manure be used. Old rotted manure of any kind is good. Cow dung collected from pastures and crumbled, is good, but is not so rich as that from grain fed animals. Old cane trash is fine. Goat and sheep dung if not too dry is excellent. Fowl droppings are so rich that they must be well mixed with the soil. Hog pen manure is usually rich, but must be broken up, not applied in lumps. Lime or woodashes should not be applied direct to a crop of potatoes; either can be applied to a previous crop to be followed by potatoes.

Drills.—Make the drills 2½ ft. apart which leaves room for cultivation between, and for the plants to grow vigorously and bear bountifully. Closer rows will result in spindly plants if the plants grow well.

The land must be cultivated deeply enough to allow the drills or furrows to be not less than 6 inches deep. These drills should be straight and run from east to west if possible, but this is not material. This lets the potatoes get the morning and afternoon sunshine evenly. On hillsides, the drills must of course run across the hills and in all cases where the cultivation is on a slope a "head" trench should be made at the top to prevent wash in heavy rains.

Width of planting.—With drills 2½ ft. apart the sets should be planted in the drill 10 to 12 inches apart; on rich or heavily manured

Seed.—Allow one barrel of seed for each square chain, i.e., say from 8 to 10 barrels per acre. Large potatoes cut into three or four sets will go further than small potatoes planted whole or cut into two sets.

Bear in mind that although everything that is planted in the ground is called a seed by the farmer, the potato itself is not a true seed, but is of the nature of a banana sucker, or cassava stick. It is the potato itself, or part of it, that is planted as seed. The whole potato need not be planted unless small ones are used. Large potatoes can be cut into two or three pieces (called sets) but each piece or set must contain an eye or may have two eyes. Medium size potatoes can usually be cut into two, sometimes three sets too. In the United Kingdom, the seedsmen and farmers use mostly what they call seed size. The potatoes are graded, the large ones being used for food and those of the size of a small hen's egg are sorted out for seed. But in the United States and Canada they do not do this, but use all except the very small ones, cutting the large ones into sets. The seed potatoes we get here come from far North—New Brunswick; they are usually large and medium size, and must be cut. The sets should not be less than 1 ounce in weight and 1¼ to 1½ ounces is better.

Planting.—The seed should always be showing eyes and sprouting a little before planting. Usually the first potatoes arriving here are so fresh that they are not sprouted, and it is best to wait until the sprouts start before planting. To force sprouting spread in a warm place and cover lightly with trash, or spread in the sun on a barbicue; the potatoes will become green and unfit for eating but stout sprouts will be forced.

If the drills are as deep as 6 and 7 inches, the manure available can be placed at the bottom of the drills and the sets planted on it. If it is found that from the nature of the land (such as a stiff greasy subsoil for instance) or carelessness, the drills are hardly deep enough, plant the sets and cover over with manure.

When the sets are cut, rub the cut surface first in lime or wood-ashes. Do not keep the cut sets long before planting or they dry out. Cut and plant same day if possible. It does not matter much whether the cut face is down or not; just drop the set in, if the field is large and work has to be got through quickly; but in a small patch, it may be preferable to place the cut surface down. Cover over enough to leave the planted drills two inches below the level. The sets must be covered at least from 3 inches to 4 inches with soil.

Cultivation.—In field cultivation with implements, a cultivator would be run between the drills every week to keep the soil loose. If heavy showers come, and then the soil bakes, immediately break it with a rake or hoe taking great care not to injure the young plants. These appear from 10 to 14 days after planting if the seed was well-sprouted on planting. At 4 weeks they should be 3 or 4 inches up. Then take a light fork (or cultivator if horse implements can be used), and break the soil between the rows 2 to 3 inches deep. Then mould or earth up the drills level with the surface. In heavy soils and high altitudes it may be wise to mould up into a ridge, but in hot, dry, places level cultivation and only a little hilling up in average places is usually best. At 6 to 7 weeks blossoms will appear and at that stage there will be small tubers like peas at the roots. The plants

will then cover the space between the rows and no more cultivation is required. At 8 weeks a few new potatoes can be "gravelled" (or scraped) up from the most forward plants, i.e., if the grower is in a hurry to taste the new potatoes. A man with his fingers can dig in and get a few of the largest tubers. At 10 weeks the crop will be fit to dig from the most forward plants, and in a quick-growing district the potatoes are often all fit for lifting at that time. Usually, however, it takes 3 months, as the seed potatoes supplied are not "First Earlies." When the stalks dry completely down, the potatoes are fit to lift and keep in store.

Reaping.—The digging of the potatoes should be done carefully with a fork. On a large scale a machine is used for this purpose; but here, hand labour with a fork must be used. Put the fork in between the rows so that the tines, or prongs, go deep down below the potatoes growing in the drill. Ease up and throw out, scattering the potatoes, and if any are still attached to the stalk root shake this out. Then dig in again in case any potatoes are left in the soil.—Gather the potatoes immediately and do not expose to the sun as this greens the potatoes which makes them unfit for eating, though all right for planting. Store in a cool place.

Immediately after the potatoes are dug out plant peas and beans.

Yield.—The crop to be expected depends upon the soil, thoroughness of cultivation, experience and skill. The crops lifted in the United Kingdom vary from 5 to 20 Imperial or long tons (2,240 lbs.) per acre, from a half to three-quarters of a ton of seed planted. But the usual amount of manure used is 10 tons, composed of horse and cow dung principally, al from highly fed animals; and also town manure from midden heaps and street sweepings; and 6 cwt. of mineral fertilizers. Beforethe use of fertilizers was common the amount of manure used was as much as 20 tons per acre. In Jamaica such quantities of manure are not available so our returns cannot be expected to be as high.

The crop here is usually calculated in so many barrels taken up, for so many planted. It is estimated that it takes a 5 to 1 yield to pay for the seed and cultivation, 8 to 1 is fair, 10 barrels is good and anything over that is very good. Such yields as 15 or 20 to 1 are uncommon, but those who manure heavily and cultivate do get such returns.

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BEANS AND PEAS.—The quickest growing of these are the ordinary red, white and speckled kidney beans, commonly called here "red peas," "white peas," and "mixed peas." These take 10 weeks from planting to reaping, but the pods can be used green as snap beans or French beans, at 6 weeks, and as green beans at 8 weeks. According to district there may be some variation as to period of growth, some districts are quicker than others.

Of "red peas" or red kidney beans, there are the following common varieties—the large American, the common speckled called Miss Kelly or Cockscomb, (sometimes "Yam-bank") and the Round Red or Cherry, commonly grown in Manchester. There are also yellow kidney beans and black, the latter called here "Black Betty"—but these are not much grown.

All the kidney beans are tender of growth, very susceptible to weather conditions, getting a set-back from too heavy rains or a pinch
plat
land

dry weather which would hardly affect such hardy peas as cowpeas.
The usual method of cultivation is simply to make chop holes 6 › 8 inches apart and plant 3 seeds in the holes. With good cultivation, ɘ., forked or ploughed land, the yield is doubled, and if dry weather ɪppens it is trebled owing to the better root system of the beans on ıltivated soil. These beans are often planted through corn and other ·ops to fill up open spaces, and this is a good plan, as they are ripe ɜfore the main crop, like corn, shades the ground. It is a good plan to l up every space through other crops with kidney beans. Even in a ırden, plant "red peas" between the young cabbage and tomato plants. takes a bushel to plant an acre and a return of 20 bushels is considered ›od. In estimating yield the period of growth has to be taken into :count; thus 20 bushels for a 10 weeks crop is plainly better than ıe same yield from a crop taking 6 months.

The best time to plant all the kidney beans in the lowlands is ovember, and they can be planted successfully up to March in the ›oler places.

COWPEAS AND BLACK EYE PEAS.—The Black Eye pea has always ɜen well-known. It is one of the varieties of cowpeas. Since 1900 ıore vigorous varieties have been imported, chiefly to grow through ıne fields and banana walks as cover crops and for green dressings. hese are known as cowpeas. Of late years cowpeas have become ›pular crops. The brown variety is the "Wonderful" and the ıle variety the "Clay." These are now usually mixed. These ırieties are very hardy and vigorous growers and very productive ore so than the Black Eye variety. Cowpeas are now more com-only found in Kingston markets than any other pea or bean, for though people were at first prejudiced against them because of their ıme, they are now a favourite food. They can be used from an ırly stage as snap beans, and later as green peas, and when fit make :cellent soup. They are good keepers. Black Eye Peas take 4 onths and Cowpeas 4½,—in some districts during the winter season ·ey may take a little longer, and if planted thickly they take still nger and picking may extend over 2 months.

Cowpeas have proved a godsend to us here in Jamaica because ter every storm which blew down our bananas, these peas here come useful to fill up the spaces, cover the ground to keep down weeds, ıd when fit provide a good substantial food.

Black Eye Peas and Cowpeas can be planted 3′ x 3′ or 3′ x 2′ in field. In banana walks, plant closer, 2′ x 2′ each way. It takes 8 ıarts to plant an acre devoted to Cowpeas or Black Eye Peas 3′ x 2′; ıd 4 to 5 quarts planting 3 close rows up the middle of the bananas.

The return is anything from 20 to 40 bushels. A comparatively ɜw variety which does not run like the Clay or Wonderful Cowpeas, the New Era which is of a blue-grey colour; it grows more erect and ɜars clusters of pods. From 1 quart of these planted through ɾeet potatoes—not therefore the best of conditions—the writer aped 1 bushel 2 quarts.

The price of Cowpeas varies in the markets from 8/- a bushel ıen they are very plentiful, to 16/- a bushel when they are not too entiful and are in demand.

There is a pea similar to the Black Eye but with a brown eye, lled Caroline Pea, which is mostly grown in Southern St. Elizabeth.

It is somewhat finer eating than the varieties mentioned above, but not so productive. There also used to be a small white pea called Cockles or Quick Increase which was a great favourite before Cowpeas became common, but which is hardly ever seen now-a-days. It was a very fine eating pea.

Black Eye Peas and Cowpeas are a summer crop in the higher elevations and do not give good results in the winter, but they can be planted almost anytime in the lower elevation—October and November are good months to plant.

POLE BEANS.—Pole Beans as the name implies are climbing beans which require a support of some kind. They should be largely grown this year. The most common is the Broad or Pole Lima common in the markets. The Jamaica variety when planted during the year waits until January to make its first bearing, then goes on bearing, but the imported variety bears in 4 months. This bean makes very fine eating. There are also many other varieties of Pole beans. The small White Limas usually called Sugar Beans are useful. The light russet brown pole bean, called Old Homestead, commonly grown in Manchester is very productive and bears in 3 months. Fences can be used to grow these on so long as stock does not get at the vines otherwise sticks 6′ to 7′ long must be provided. We know a man who a week after the storm turned his flower garden into a bean garden, planting pole beans all through, tore down creepers from his garden fences, and substituted climbing beans.

Pole beans are usually hardy but they benefit by any hely they get. The soil should be deeply forked even if not manured and a a dressing of wood ashes is always beneficial.

Plant two beans to a hole just a few inches from each other, and make the holes 3′ apart. In field cultivation plant 6′ x 3′.

GUNGO PEAS.—A favourite pea and a hardy grower is what is called the Congo or Gungo Pea, otherwise Pigeon Pea. It is borne on a small tree or shrub, and no matter when planted will only blossom about December and bear in January and February. If planted early in the season, the bush grows large and bears profusely. The later the planting, the shorter the period of growth, and therefore the smaller the bush. August is a very usual time to plant; October is late and planting should only be done then when the plants are to be left to grow during the following year when they will develop into large bushes. Gungo Peas bear on poor soils, and it therefore may be convenient to fill up hillsides with them where almost nothing else will grow. At this time we would recommend planting 3′ x 3′ and in January after the bearing is over, chop out every second plant. There are several varieties the finest being the "No Eye," but the common variety found in the markets suits the tastes of most people. It will be hard to find seed so late in the year.

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SWEET POTATOES.—These are a hurricane-proof crop and fortunately have been planted very largely this year. Unfortunately the potato worm has caused great loss in some districts, many of the tubers being riddled with the pest. These tubers are usually still fit for pig-feeding, if not too badly infested. It is still a debatable point

rate that old land where crops of sweet potatoes have been grown repeatedly are usually very subject to the pest. The writer has half an acre where sweet potatoes have not been grown for 3 years, and about 25 per cent. of the potatoes had "worms" four months from planting. It was in close proximity, however, to other patches which are cropped twice a year with sweet potatoes. New land away from places where crops of sweet potatoes have been repeately grown, are most likely to be exempt.

In quick-growing districts the earliest sweet potatoes are fit to be "gravelled" out if times are hard, in from 3 to 4 months, and at 5 months can be commonly used—although all the crop of some varieties will not be ready to lift until 6 or 7 months. There are always some potatoes more forward than the main crop.

The names of sweet potatoes in Jamaica are numberless, but they are not all different varieties as the same kind bears different names, not only in different parishes but in different parts of a parish. Yet there are some kinds that bear the same name all through. One of these is "Sarey" a hardy, productive, but not always a good eating potato. "Lewis Daly" is common to a number of districts also. It is no use naming a large number of varieties. The Prison Farm tried numerous kinds but have eventually specialized on Trinidad No. 1 and Caroline Lee; the former are early potatoes taking 4 to 6 months, and the latter, being late potatoes, take 6 to 8 months in that district where there is heat, and—as there is irrigation—plenty of moisture.

The usual method of growing by hand cultivation, is to make hills 18 to 24 inches across and touching each other. Planters who have ploughable land usually use implements and turn the soil into banks 18 inches wide, or more if possible, and plant the slips zig-zag, 9 inches apart, not straight up the middle. It does not make much difference doing this or planting the slips 9 inches apart straight.

Our sweet potatoes here are much degenerated through taking any kind of slips for planting from old fields over a long series of years. As with other plants, a careful selection of the seed or plant to be planted is as necessary and valuable with seed potatoes as with any other plant. Moreover planting from a nursery exercises a certain amount of check on the weevils. All regular growers should lay down a bed of selected sweet potatoes free from weevil marks and if possible from an immune field; cover with earth and when they sprout, draw each sprout out carefully and use for planting a large bed. Then take slips from these for field planting. Never allow the slips in the bed to grow tubers as these may breed the insects and further spread the trouble. If your nursery is not ready and you must plant at once, then take the slips from a good field of nearly fit potatoes.

Although burning old lands is against the interests of most crops, still if a field is known to be infested with potato worms, we should go so far as to give it a good burn before we plant potatoes again, if we had no other land to plant. To get the trash to burn on it, if there was not enough bush on it to give a burn, might be a difficult thing.

Applications of woodashes or lime are both helpful to make soil conditions unpleasant to the potato worm. When land to alternate crops is available, the best method is to grow another crop altogether like corn and peas, or throw up in grass for a few years.

The average yield of sweet potatoes per acre here is very low—not over 4 tons per acre.

As there are ordinarily 10,000 hills in an acre, if these only averaged 4 lbs. per hill which does not sound too much, that would give a yield of 17 tons so that there is a big loss somewhere in this cultivation. The fault lies in old lands repeatedly cropped without rest or manure, poor preparation of the land before planting, and poor slips planted.

:o:

FOOD CROPS.

The hurricane this year has not generally caused the widespread loss in every crop that the storms of 1915 and 1916 did, but unfortunately it struck the east end of the Island as hard as that in 1903 did, breaking and uprooting bearing coconut trees, smashing houses large and small, and of course destroying bananas and yams. The eastern parts of St. Thomas and Portland suffered most, and going west the effects of the storm became less and less, the south side getting less than the north side. It is particularly unfortunate to get a blow like this again, not only because it has come after hurricanes of August 1915 and 1916 so that no crop of bananas, on which the Island depends so much for its income, has been reaped in the 3 years, but also because such great effort had been made during the last year to make good and to meet the situation of the scarcity of foodstuffs caused by the war. Assisted by good seasons every crop looked well, bananas were just coming in, the export trade was beginning and many were glad to have green and ripe bananas on their table again after such a long period without them. Bananas are an important local food and would have largely relieved the consumption of yam.

While all the tall bananas are not blown down everywhere, those that remain will be so battered that they are not likely to produce good bunches for shipping, but will be useful for local food. In sheltered glades here and there may be seen a few bananas hardly touched while plant bananas especially those planted lately, have largely escaped. Practically all bananas in the east end are down, and the few stems left are hardly of any use to let grow.

Bananas are a good crop but it is not wise to depend upon them so much as we have been doing. They should only be grown where they can be produced cheaply—i.e. on the best soils—giving over to other crops the land which might require much labour and cultivation to produce straight bunches. If central sugar factories can be arranged for in different parts of the Island, this will be a great relief and will enable large banana growers as well as small settlers to grow another and safer crop than bananas.

Meanwhile, through all the broken-down bananas in the lowlands cowpeas should be planted; this crop does not grow well in the higher parts in the cool time of the year, our "winter". In the high parts we can only suggest filling up with "Red Peas" and cocoes, perhaps corn if it is not too late. In some districts corn does well in October, in others no planting is successful in that month.

Yams.—This is an expensive crop to grow and a slow one to increase, for the storms of 1915 and 1916 caused very much loss in "heads," at a time when growers in the parish of Hanover had not recovered from the great loss the yam crop suffered there in 1912.

onsequently this year in a good many districts yam heads were not lentiful. Still there was an increase all over of about 50 per cent. nd the cultivation was largely extended in the banana growing disricts as a kind of insurance on the bananas. Yams are the favourte local foodstuff and much in demand and there was the early rospect of large yields and ready markets at prices much higher han in average years. The loss in E. Portland and E. St. Thomas as been nearly complete, and while also severe in W. Portland and V. St. Thomas, the loss is less and less going West. The loss in St. Mary is about 25 per cent., St. Catherine the same, but other parshes not more than 10 per cent. In most cases the sticks lay down vith the first blow from the North and the vines were not broken; hese could be raised up. This is now a crop to be cared for before ll and planting should be extended next Spring again.

Sweet Potatoes:—Being a ground crop, not much damage has een caused to the crop. The potato worm has caused great loss in ome districts. Where the heavy rains washed the hills or banks hese should be immediately hilled up again. On hillsides loss was aused by the rains washing soil away and making little gullies lown the hillside. This could have been prevented by a few renches.

A leaflet on sweet potato cultivation accompanies this.

Cocoes (*Colocasia esculenta.*)—Readers will understand that this efers to the common Jamaica tuber locally called cocoe, (called lsewhere eddoe, tania, and taro. This crop is not quite hurricane roof and when heavy rains fall continuously afterwards as happened ast year, the plants being wrung. the water settles, and especially n heavy soils, rot begins; but fortunately this year we have not ad heavy or continuous rains, and this is one of the safest and best rops that can be grown especially in seasonable districts. After experience of the previous hurricanes, planters in St. Mary lanted this crop all through their bananas as it grows well in the hade and now that parish will shortly have abundant supplies. It s therefore a good plan to fill up through bananas with cocoes. It s one of the few crops that can be planted now in the hills. Fortuately there are always plants available; cocoe heads are cheap as hey can be cut into small bits, and go a long way when it comes to lanting. At certain times of the year, in certain districts suckers an also be planted. Cocoes do not give so quick a crop, however, s peas or sweet potatoes. The length of time the tubers take before hey can be used varies from 6 to 9 months but the most forward ubers can be dug out earlier and used at a pinch.

Peas & Beans.—These should be largely planted now but care hould be taken only to plant the right kind for the district at the est time for it. A special leaflet on Peas and Beans accompanies his. The Agricultural Society has plenty of Cowpeas in stock, but nly limited quantities of Black Eye Peas and Red Beans.

Corn.—If the storm had occurred in August very great loss vould have occurred to this crop which had been largely planted nd bore well. In some districts the young corn planted in August as been badly washed and will have to be replanted. Clarendon as suffered in this way. In other districts like Manchester and St. Elizabeth the young corn only 6 or 8 inches high has not suffered at

Wherever corn has not been planted or has to be replanted, an October planting should be made where it is considered that planting in that month will give a good crop. The Agricultural Society has still selected seed corn in stock.

FOOD CROPS.

ESTIMATE OF INCREASE FOR 1917 BEFORE THE STORM, AND ESTIMATE OF LOSS CAUSED BY STORM

We present some of the reports by Agricultural Instructors on increase of food crops, made to us before the storm, with their estimate of losses caused by the storm of 23rd September. In some districts crops other than bananas were hardly affected. Everywhere however there is loss of bananas varying from utter destruction in the east end to 50% in the West.

E. PORTLAND AND E. ST. THOMAS.

	Estimate of Increase.	Storm Loss.
Bananas	50%	100% ratoons 90% plants
Yams	Normal	33% gone 33% damaged in Portland; 10% & 20% in St. Thomas
Cocoes	50%	10%
Sweet potatoes	55%	No loss
Cassava	20%	40%
Corn	50%	10%
Red peas, etc.	10%	50% & 30%
Cowpeas, Gungo peas	30%	do
Pumpkins and vegetables	25%	Not in season
Plantains	20%	95%
Cane	30%	80% in Portland

There are no crops near the coast in E. St. Thomas, other than bananas, coconuts and cocoa to any appreciable extent, and the interior parts have not suffered so much. The greatest loss is in East Portland

ST. MARY.—Breadfruits practically all gone from the trees and many trees blown down.

Yams	25%	Yam heads were scarce, 3[illegible] %
Corn	500%	All reaped
Potatoes	300%	No loss
Cocoes	300%	do
Peas	300%	All reaped

With an immense increase in pumpkins and all such crops except plantains: cocoes are being planted in ever increasing quantities.

Bananas total destruction except late planted plants of which about 50% remain good.

Coconut trees destroyed.............................. 2%
Coconut crop for next 12 months reduced................ 30%
Cocoa trees destroyed negligible
Cocoa crop for next spring reduced..................60—70%

Cocoa crop for Autumn, 1918			40%
Breadfruits	1917 reduced		100%
,,	1918	,,	50%
Pears	1917	,,	100%
,,	1918	,,	50%
Plantains	1917	,,	100%
,,	1918	,,	50%

Corn and peas, none planted for late crop.

W. CRADWICK,
Agricultural Instructor.

29.9.17.

ST. ANDREW AND W. ST. THOMAS.

	1917	Storm Loss.
Sugar Cane	6 times over normal	20% of crop
Yams	2 times	20%
Cocoes (tanias)	5 ,,	30%
Sweet potatoes	6 ,,	30%
Red peas	2 ,,	Almost total loss
Congo peas	5 ,,	20% of plants
Indian corn	4 ,,	Crop reaped; not much as new crop just planted, say 10%.
Bananas	same	Practically all gone.
Plantains	do.	do.

A. P. HANSON,
Agricultural Instructor.

17.9.17.

WESTERN PORTLAND.

		Storm Loss.
Yams	50% more	80%
Sweet potatoes	2 times as much	Small loss
Corn	100% more	New crop not planted to any extent yet.
Cocoes	50% more	No gteat damage
Peas	50% more	Not in season
Bananas	same	Total loss
Plantains	same	do
Coconuts	same	All nuts on trees have dropped or will drop; 20% of bearing trees gone; more in some places

E. A. GUNTER,
Agricultural Instructor.

NOTE.—This district was the earliest to reap the increased food crops, and it is estimated that from August was sending about 50 tons of foodstuffs to markets outside of the parish, about half to Kingston. A first supply of free foodstuffs had been generously made to the poor of Kingston, a second was arranged and more would have followed. Now the bananas, plantains, breadfruit, yams and oranges which they had in abundance, are practically all gone, and food will be scarce locally.

CLARENDON IMPROVEMENT COMPETITION.

As a result of the success of the Competition at Crooked River, an account of which appears in the September JOURNAL, prizes have been offered for the greatest improvement made on any holding during the year September, 1917, to September, 1918, as follows:—

To the Crooked River Branch, 5 guineas, by Manly T. Lopez, Esq.

To the Mocho Branch, 5 guineas, by George Muirhead, Esq.

To the Frankfield Branch, 5 guineas, by Leonard Sutton, Esq.

To the Kellits-Chapelton Branch, 2 guineas, by Dr. H. Strachan.

To the Far Enough Branch, 1 guinea, by Hon. J. A. G. Smith.

To the Blackwoods Branch, 2 guineas, by E. C. Clark, Esq., Solicitor.

To the Crofts Hill Branch, 1 guinea, by Dr. Sherlock.

To the Rock River Branch, 5 guineas, by Clarence Lopez, Esq.

Mr. Herbert Brennon of Orange River, also offers a prize of 2 guineas for the best Ground Provision field on his property during 1918, and there is in addition a competition going on in the Crofts Hill Branch for the best quarter acre of Ground Provisions, judging to be done in January, 1918, several prizes being offered.

Other gentlemen are being invited to offer similar prizes to the remaining Branch Societies and thus help considerably in building up Clarendon. I am hopeful that this list will grow much larger in the next issue of the JOURNAL.

S. A. SCHLEIFER.

CORN.

Bravo, Agricultural Society! Through your efforts, corn of excellent quality has been produced in large quantities, and the price has been good. Men now eagerly seek for good seed corn when they have not reared up their own, and the industry is getting on a sound footing. Corn improves the farm animals and helps to feed the household. Corn thus, not only brings in money, but saves money.

"It is as good on the farmer's table as in the feedbox of his horse."

S. A. SCHLEIFER.

The difference between "ancient" and "modern" methods of cultivation has been well exemplified at Hyde, in St. Catherine.

With the permission of the Attorney, I give the following data:—

Last year 3¼ acres of land were planted in corn, the methods adopted were to say the least crude, the result was an expenditure of £6 19/- and the returns 15 bushels.

This year the same piece was again planted, but it was thoroughly ploughed and harrowed, selected seed corn was purchased from the Agricultural Society—result—yield 121 bushels, an average of 37 bushels to the acre. This is not a very extraordinary yield, but it has been a profitable investment, for the corn was sold at 5/- per bushel on the spot.

H. L. M.

15th Sept., 1917.

JAMAICA AGRICULTURAL SOCIETY.

SWEET POTATO FLOUR.

It is to be hoped that one practical benefit of the war will be the development of our own resources. These we have in plenty, but while we are no worse in Jamaica, in our want of intelligent faith in ourselves than other people, we certainly are no better, and the man who can stir up the enthusiasm that leads to sustained effort, is an asset to his country.

Between the people who at once think of something better or at least different to what he has thought of and the people who think he is a nuisance for wanting them to think of anything at all, the Agricultural Instructor usually has a rough time of it.

Having delivered myself of this let me say that I still have hopes of seeing the Sweet Potato flour fill a useful part in Jamaica domestic economy. At present it would be necessary if one made one's bread partly of it, to apologise before offering it to one's friends on account of its slight darkness of colour, the fact that a saving of £20,000 per annum on our imports by the use of sweet potato flour is possible, would weigh but little with some people if they could only demonstrate their own smartness, in finding out that they really thought the bread was different—don't you know. Just think of producing £200,0000 worth of food in the Island out of a simple well known old friend that everybody knows how to cultivate, will grow almost anywhere, which the wind cannot damage, and which we have to be very well fed before we even acknowledge that it has skin, but then washing in Jordan is no more popular to-day than it was 3,000 years ago.

However, I have been encouraged to keep dinging away at it some members of Branch Societies recount that they are using sweet potato chips in soups, others have used it as porridge, all testify as to its excellence and palatability, and I did not catch any of them winking the other eye.

At least two large planters have assured me that they use it regularly, we had samples of the bread at general meetings of the Jamaica Agricultural Society, but whether anyone has proceeded to plant on a large scale for the purpose of producing potatoes for making flour on a practical scale or not, I cannot vouch.

The following facts have, however, been gleaned:—

1. That white potatoes make a better looking flour than red ones, that is the flour is whiter, and as people have been drilled into thinking that whiteness in wheaten flour is the standard of quality whiteness as the standard in potato flour follows. Judged in this way, it is a much better looking flour than banana or plantain.

2. That potatoes left in the ground to become old and worm eaten, or deteriorated in any way do not make a nice looking flour.

3. That if the chips are desired to dry out white and attractive in appearance they must be cut very thin.

4. That there is no necessity to peel or scrape the potatoes but simply wash them very clean, but slice with a clean sharp knife.

5. That 3lbs. of potatoes give 1lb. of flour.

6. That an ordinary corn mill is all that is required to convert

8. That to turn out potato flour on a large scale, the chief re quisites, after the potatoes are planted of course, are plenty of nic clean water, a mill for slicing the potatoes; slicing by hand is ver labourious, although not half so bad as picking pimento or peelir ginger and plenty of other things, only and that its worst failing rhat our great great great grandfathers did not do it.

9. That an acre of land cn easily produce 6 tons of potato yielding 2 tons of flour, equal in value to 2 tons of shop flour.

10. That if the chips are cut very thin, one day's good hot su even in an atmosphere so moisture laden as that of St. Mary, w thoroughly dry the chips, which can then be immediately turn into flour. Compare this with the risk and trouble of drying corn.

11. That in order to make good potato chips and flour, it is fi necessary to plant potatoes.

W. CRADWICK.

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LIME.

Owing to the large amount of juicy vegetation now on the grou in banana fields and which when the fallen banana stalks are chopp up will cover the whole field, the soils are apt to be soured. Wh it can be done cheaply and be afforded a good dressing of lime wo sweeten the soil and make the plant food available quicker. La year after the storm we saw one small part of a field limed, and la on the crops were 2 to 3 months ahead of those on the unlimed portic The slow recovery of crops for several months after a storm especia when heavy rains follow day after day, is due to souring of the s Good drainage is a great help under such circumstances. The surp water is drained off quickly. Stagnant water on and in the soil very prejudicial to the growth of plants.

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WINDBREAKS.

In some countries windbreaks are a regular feature of cultivati While a windbreak would not save the loss caused by a full hurric to some crops, it would certainly prevent, or at any rate save mu loss to certain crops by high winds. Large clumps of bamboos fo good windbreaks; mango trees are strong growers with thick t and where they fruit are thus doubly useful. There are localit even in the lowlands, where mangoes do not fruit and sometimes dividing line is sharp; they bear one side of a river in one dist and not on the other. They bear up to the top of the road cross Mount Diablo from the south, but not on the other side. T bear high up in the Port Royal Mountains on the south side but at all on the north side. The usefulness of windbreaks should rec close attention.

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PEANUTS.

Mr. A. H. Rogers gave us a very fine sample of peanuts grown him in the Red Hills district of St. Andreww. We had a san of some of our own growing to submit to the September meeting the Board of Management, but as these were superior we showed th The members of the Board were interested in encouraging

growing of peanuts, to take the place of those imported and gave a small grant to enable the Secretary to furnish seeds to school gardens in the hope that the teachers in suitable districts would grow a bed and from these and distribute seed in their districts. It must be remembered that peanuts do not bear like peas or corn, or nuts on a bush or tree, but are produced like potatoes in the soil. The peanut vines blossoms turn into the soil and bear there, the shell generally containing two seeds or nuts. Thus it is necessary for the soil to be kept loose and open.

The amount of seed to plant an acre is half a bushel, and the yield should be from 25 bushels upwards.

PEANUT GROWING IN JAMAICA.

With its great adaptability to soil and climate there is no reason why we should not be able to raise larger quantities of this valuable food product in this country, and so add another article to our dietary, which is pleasing to the taste and highly nutritious.

In preparing a plot of ground for peanuts it is best to get it in readiness well in advance of planting time (April nnd May is about the best time) as best results cannot be obtained with hurriedly prepared land. The land must be well forked, and worked as fine as possible, all stones, sticks, etc., being raked off. All shade must be removed, as the peanut is a sunlight lover. Give a liberal dressing of cow-peh or stable manure; or failing that woodashes and yard sweepings which should be well stirred into the soil. Let the soil remain to grow weeds for some weeks before planting, to be turned under later. This will prevent the young plants being crowded with weeds too early in their growth.

Select your seed carefully; this is important, only the largest double nuts should be planted, single nuts should not be used for seed. After shelling any imperfect seed should be picked out. It is never good to plant in dry weather, unless one has facilities for watering; as germination cannot take place without moisture; if the rain be delayed nuts are quite likely to attack the seed, with the result that your plot of ground will be empty here and there in the rows. The sweet oil in the peanut is what attracts them. It is best to plant just after a shower of rain, and your plants will lose no time in coming up.

DISTANCE APART.—This also is very important in peanut growing. If the soil is rich the plants should not be less than 2½ feet to 3 feet between the rows, and 18 inches in the rows. Much better results will be obtained in the yield even when this distance is exceeded, than when crowded. The vines must have room to run and to prevent undue intertwining. On poorer soil the distance apart may be lessened somewhat.

Sometimes the vines will show a tendency to grow upright instead of laterally. All such should be pressed down in order to take root, and any that come up again can be kept down by a small stone or clod of earth. The lateral vines will give twice the yield of those growing upright. The central vine must not be pressed down as this always remains upright.

LIFTING THE CROP.—This is the last important operation, for

if taken up too early the nuts will be lacking in germinating power, and also in flavour; and on the other hand if liftig be too long delayed, the following disadvantages appear: Nuts drop from the vines, necessitating a thorough digging up of the soil to find them; a proportion of nuts will start growing before they are taken up, others are damaged by wet weather; rats will eat some proportion of nuts unless the precaution is taken oo poison the plot before the nuts are ripe; the shell is rendered much darker in colour, and does not present so pleasing an appearance to the eye as the lighter shell.

The best time appears to be when the vines are yellowing. Then the nuts are fully matured, and only a small proportion will have dropped off. If your soil has been well prepared nearly all the vines will come up easily when pulled, with their wealth of nuts adhering. They can then be picked off and dried for some days before storing. Keep your eye on the rats and nuts when storing. Keatings' powder or Nathalene will keep the ants away.

If grown on red soil the nuts can be washed before drying, especially if lifted in wet weather.

ARTHUR H. ROGERS.

Red Hills,
St. Andrew.

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HOUSEHOLD HINTS.

COCONUT BUTTER.—For the benefit of those who cannot see the use of making coconut butter at home to use for cooking purposes, in place of imported cottonseed oil, and to feed the resulting meal to fowls thus making a double profit, we will again say that 10 ordinary good coconuts at 1/- to 1/6 according to size and locality, will make 2½ lbs. of butter, and the meal if well dried will give 6 lbs. of meal or more (depending upon the drying) worth not less than 1½d. per lb. for feed for chicken and young calves—in fact, in food value it is worth more.

To keep hard follow the plan mentioned on page 306 of August Journal.

The strong coconut flavour can be reduced if the cream can be set to ripen (like dairy cream) in such a cool place so that it will keep for two to three days. This ripening does away with the coconut flavour to some extent.

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It does not look well on table to serve a cooked fish with a large and ugly head and mouth agape.

When preparing fresh fish for cooking, take off the head, trim off the tail and fins with an old pair of scissors; remove the entire corner containing the fin that is next the head, and carefully scrape off all the white membrane which lines the abdomen, as it is that which gives the bitter taste to fish when cooked.

* * * * * *

The ordinary cooking of any kind of "greens" renders them a tasteless stew in comparison to cooking them in their own juices. To do this, wash them thoroughly, shake the water from the leaves, put them into a tightly covered pot, and place over a slow fire. The juice in the stems and the leaves is sufficient to cook them without burning if the fire is low, especially at first. The flavor is greatly improved. The tender young plants which we pull up when thinning out the beets, make as nice a dish of "greens" as one could ask for.—*Farm Journal, U.S.A.*

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EGGS.—There is a right and a wrong way to do everything, even to the frying of an egg." For the right way to do this simple job, break all the eggs to be used into a shallow pan or dish. Put a large spoonful of lard into the skillet, and when it begins to heat sprinkle it liberally with flour (from a shaker, if possible), slide the eggs in carefully, add a tablespoonful of water, and cover quickly with a tight lid. The flour makes a delicious bit of crust on the bottom, the water gives steam enough, aided by the tight lid, to cook the eggs through without burning, and to put a white coat on their tops. Add pepper and salt just before serving.—*Farm Journal.*

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MARMALADE.—Take 7 lbs. Sour oranges and 2 lbs. lemons. Wash the oranges and lemons, cut them right through peel and all into very thin slices. Cut with

a nife and fork the rind of the slices just roughly to make chips, and weigh fruit cut thus, and to every pound of fruit allow three pints cold water. Put in earthenware basin, and let stand for twenty-four hours. Then boil till rind is just tender and a chip will crush between your fingers. Let stand till next day. Then weigh, and to every pint of pulp put one pound loaf sugar. Put into a clean preserving pan and boil slowly till rind is transparent and syrup jellies. Then pour into pots and cover.

* * * * *

ECONOMICAL MARMALADE.—1 lb. Sour oranges, one lemon, 6 lbs. sugar, nine tumberfuls cold water. Carefully wipe the oranges and lemon and cut in eight lengthwise. Take away the pips. Slice as thinly as possible through both skin and pulp. Put in large basin and cover with the cold water, and set aside for 24 hours Then put on in jelly-pan and boil 1 hour; or till the skins are tender, keeping always filled up with boiling water to the same quantity, as it evaporates while cooking Set aside till cold, then add the sugar, and after it boils remove scum and boil half-an-hour or till it jellies. Pour into pots. Costs about 1½d. per lb.

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LEMON MARMALADE.—Carefully wipe two pounds of lemons. Peel off their rinds thinly, and cut into very narrow strips. Put these strips into an enamelled pan with one pint of water, and boil for half-an-hour. Take all the white pith from the lemons and throw it away. Cut up the lemons and put them with two and a half pints of water into a preserving pan. Add the chips and the water they were boiled in. Boil for about an hour, stirring often. Now measure the quantity and for every breakfastcupful, add 1 lb. of sugar. Boil for half-an-hour or till it jellies, and put away in jars in usual manner.

* * * * * *

KEEPING MILK SWEET IN HOT WEATHER.—A pinch of bicarbonate of soda will keep milk or cream sweet in hot weather. In hot weather, when meat is likely *to be tough, dip it in vinegar before cooking. This will make it tender.* Milk will remove inkstains from carpets, tablecloths, &c., if applied directly.

———:o:———

SEASONABLE HINTS.

GOOD ADVICE.—Dig deep, manure well, work often. That is advice given b Pliny a philosopher who lived, thought and wrote, 2,000 years ago. It is still the best advice that can be given because it is so often not done here. The soil is not broken up deep enough, or thorough enough, and how very seldom is manure ever added And how few who are their own masters give a good hard 9 hours work per week day

* * * * * *

Plant pumpkins through the corn wherever there is a missed hole or a plant not likely to do well, but do not plant closer than 15 to 20 ft. square. No use of crowding pumpkins. Water Melons should not be planted closer than 10 x 10 cucumbers 4 x 4.

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SWEET POTATOES.—We hear of the wonderful potatoes grown in East and South-East Africa, large as yams, and very much finer eating than we have here and they are good keepers. Earl Kitchener wrote about them from East Africa, and a friend here who was in Natal has often mentioned them Our sweet potatoes are run down in constitution through taking the slips for planting constantly at random from any old patch. We have this year carefully planted "draws," or the slips taken from sweet potatoes themselves, and we shall compare the results with potatoes planted in the usual way—slips taken from an old field Set out a dozen good fit sweet potatoes in a trench and when the slips grow draw them carefully and plant these. Watch the results.

* * * * * *

TOBACCO.—The acreage under cigar tobacco will not be so much as usual this year, as some fine tobacco land has been put under sugar cane and food crops We hope too there will not be so much under pipe tobacco. Effort is better directed to the growing of corn, peas, potatoes and cassava. Still, as this is the month to prepare nurseries, if any one wants seed of either cigar or pipe tobacco, we have it.

Great care has been taken in the selection of our cigar tobacco seed; it has really been selected from strong healthy plants, not taken at random from any kind of plant as seed usually has heen taken.

Prepare nurseries now and plant some seed, but save seed for later nurseries in October as a reserve. (This paragraph was crushed out of September Journal)

ave just taken up a small quantity, 3½ months from planting, grown for experiment
ı the lowlands in the summer, and on good light alluvial soil, which has indicated
ıat peanuts can be grown in any part of the Island so long as there is some rain.
lanting at the same time as corn and peas. Previously we never tried a summer
rop in the lowlands, but only planted in November, and we would advise all those
/ho have nice light soil to try a patch in November coming. Roasted peanuts
ıake fine eating and are very nutritious. The cultivation is pretty much like peas,
nly the soil must be kept loose, because the peanut has a peculiar way of bearing,
.e., the blossoms turn down and the nut is borne in the soil, not in the air.

* * * * * *

BLACK EYE PEAS.—We have some lovely seed raised from American imported
eed. The seasons were favourable, and the land well cultivated where these peas
/ere grown. The grains are large and regular. We sell these selected grains
ıost free, in small quantities. Railage would require to be paid on any
ļuantity over 8 quarts. These make finer eating than cowpeas. Try some.

———:o:———

POULTRY NOTES.

Don't carry fowls by the legs, head down, or by holding the wings. These
:ruel ways ought to merit prosecution for gross cruelty. Tuck the fowl under your
ırm so that the wings are held tight and grasp the legs with the hand.

* * * * *

Now is the time to clear out all the old nest boxes, scour them with Paranaph, or lime wash with disinfectant in it. Cut fine grass and when it is throughly dry, put into the boxes when they are thoroughly dry. See that the nest boxes are in a quiet place where the hens will be undisturbed and put a marked nest egg in each box.

* * * * * *

What should it cost to feed fowls, is a question very often asked? Where they have a free run and are fed only on corn they ought not to cost a penny a week here, with corn at 4/- to 5/- a bushel. The average feeding, where fowls are better fed, should be a penny a week, and with imported foods and dear foods 2d. a week. We feed—now that corn is in again—80 fowls ranging from 3 months old up to grown fowls having a free run, 8 quarts of feed per day not costing more than 1¾d. a quart; and 40 fowls (mostly at present young cocks 5 to 6 months old) confined, cost a trifle more but the soil in their pens is occasionally turned over for worms of which there, are usually plenty and they get a cartload of horse manure weekly to scratch among and which costs 6d. This is the amount for food not charging labour.

* * * * * *

The paper *Farm Field and Fireside* of London, says:—Now that eggs are so dear we are all of us wishing we had preserved more of them during the season when our hens were laying. Here is a very simple recipe for preserving eggs: Place each new-laid egg on a spoon and pass it slowly through water that is kept at boiling point in a saucepan. This closes the pores of the eggshell and seals the contents up tightly so that neither air nor germs can penetrate. Then pack the eggs away in a box filled with salt and they will keep four or five months.

* * * * * *

The effect of the storm on poultry 90 per cent of which roost in the open on trees will no doubt still further decrease our stock of fowls and turkeys, and lessen the production of eggs. One can imagine, even without seeing, how fowls exposed to the hurricane wind and beating rains, with no sunshine following quickly to restore warmth, but still more rain, must have suffered.

The battering and soaking fowls have got, will likely lead to a crop of colds—roup or bronchitis or both, and will lessen their vitality so that hens already laying will stop and those about to lay will get a set back.

We fed ours immediately after the storm with soft food with a strong dose of red pepper in it.

Instructions how to deal with roup were given in September JOURNAL. Bronchitis is not so bad. The fowls have a rattling in their throat and in bad cases there is also a gasping for breath. Paint the outside of the throat with Tincture of Iodine, or failing that rub with embrocation.

* * * * * *

In the United States poultry keepers state that while poultry products have been 25 per cent higher in price during the most part of last year than formerly, poultry feed advanced 100 per cent. Now however [illegible]
per cent more while owing to tl
will not advance further, except w

In Jamaica the price of eggs and poultry did not advance during the year, while the chief poulry feed corn was from 100 to 150 per cent. higher than usual, with the result that many who kept fowls on a fairly large scale and had to spend upon purchased foods, reduced their stock or sold off altogether. It will not be easy to build up a good flock again, because few breeders will have any pullets to spare. The writer had 90 grown pullets looking to lay at this time last year; he has 40 at the time of writing, not yet full grown, some only half grown because of late hatchings. From enquiry few of the regular breeders will have any pullets for sale at all.

It is a necessity for any success to separate the young cockerels when they begin to crow, otherwise they never grow well, and are not first class for breeding stock nor for the table.

* * * * * *

FEEDING.—Most people still feed at random not estimating the amount of food for the number of fowls. A quart of food morning and evening is enough for 20 grown fowls having a free run, i.e., quart of meal made into soft food for morning and a quart of corn given for evening. Those confined but with a scratching heap, should also get a half pint grain food or a pint of soft stuff like left—overs from table, during the day. At 1½d. per quart this would make 1/9 per week for 20 head or practically 1d. a week each. From this it can be calculated what fowls cost with food at 2d. or more a quart. Very few people ever figure out.

———:o:———

STOCK NOTES.

ANIMAL FOOD.—Vegetable food we can raise in abundance in 6 months from planting provided we have the land and the seasons, but when it comes to animal food the process of providing the most common and the most appreciated—beef—is very slow. The quickest animal food that we can provide for ourselves is poultry and eggs, including pigeon, rabbits and guinea pigs. Then as we go up the scale the process is slower. Next come goats, then pigs and sheep, and then cows.

* * * * *

All these animals are at the present time scarce. The high price of imported animal food, especially salt cod fish (formerly 4d. a lb., now 9d.) has caused a large local demand for goat's flesh, pork and beef, so that the consumption of these has been for a year past, three to four times normal. Goat's flesh and pork have gone up in price, but beef has remained at 4½d. to 6d. per lb. according to districts, the high price of hides being the butcher's compensation as he has bad to pay more for cattle.

The result of the increased demand for local animal food is that young animals and even female breeding stock are being killed.

If the war goes on for another year as is likely and the shortage of tonnage continues (the indications being that there is likely to be greater difficulty than at present) and the price of salt fish remains high with limited quantities available, there will be very great difficulty during the coming year in providing local animal food.

What can be done is to raise as much of the animal foods that can be quickly produced as we can. These are rabbits, and guinea pigs, the feeding of which is cheap and poultry of all kinds, the feeding of which will not be so expensive as before the corn crop came in, the price of which at present enables us to feed at about 1d. to 1½d. per head per week.

All our domestic stock are of increased value to us now, and should be more than ever cared for well. No females should be sacrificed for eating purposes unless they are aged and of no further utility.

* * * * * *

SHELTER FOR STOCK.—We have written many times on the necessity for providing shelter for stock especially small stock, when heavy and continuous rains occur, the lives of these poor beasts are made miserable as often they are tied out a distance from the house, are not shifted to fresh feed and so are starved. A simple shed according to the circumstances of the owner is a good additon to the holding. Of course in the worst districts where a hurricane strikes them sheds go over unless very strongly built indeed. With a shed, whenever heavy rains occur, mules, donkeys and goats could be brought in and feeding cut for them, or if there are intervals of sunshine they could be tethered out near by. It is a good plan to keep always a paddock of good feed near the holding to feed beasts in emergency. Horses are

FOOD CROPS.

To the Editor,

Sir.

Will you permit me the use of your column to say a word to the Small Settler and other food producers of this parish.

Quite apart from the Storm's effects the necessity for increased planting of food crops is as great to-day as it has ever been, probably greater, and the good seasons we are having are full of promise to those who will take advantage of them.

Now that the storm has swept us, the necessity is greater still as it is almost sure to affect the bearing of our yams and other crops.

Of most food crops, you small settlers know more than I do, but there is one crop which is greatly neglected throughout Jamaica and which I wish to bring to your notice—viz., Corn. It is one of our greatest food crops for man and beast, and you generally eat it as corn meal preferring to pay some one in America to grow it for you than to grow it yourselves. You little realize how much you pay for it which might be saved to you.

Its neglect by us in the past is due to its not being considered sufficiently remunerative to induce its being grown on a large scale, and this is due to the price here being affected by the price of corn grown in America by machinery and to lack of knowlege of how to keep the corn from deterioration by insects, mildew, etc.

Because of this lack of knowlege of how to keep it your crops are generally rushed into the market within a week or two of being gathered, often before the corn is properly dried. This rush to market is what brings down the price low. There is then more corn selling than is immediately required and naturally the buyers put down the price, while if you kept your corn back and sold a little at a time, you would get sufficient remuneration to tempt you to plant always. The Agricultural Instructors will tell you how to keep corn, but the first thing to do is to dry it thoroughly in the sun till they have time to come to your district.

American Corn meal is worth to-day in Jamaica 48/- to 50/- a barrel which is equal to more than 12/- a bushel for corn. It will be evident then that if you eat American Corn meal you are paying for corn three times as much as your corn is worth to you at 4/- a bushel.

There are two lessons to be learnt from this, viz:—(i) It is better to keep your corn and sell it as it is enquired for and grind it in your small corn mills by hand power to feed yourselves and families rather than buy American corn meal. (ii) Plant more corn and make more money.

The crop wont be so big that you wont make good money. The Government have agreed to, and are, in most parts buying corn at a minimum price of 4/- a bushel so as to prevent the price going so low tht you will lose, therefore you need not be afraid to plant MORE CORN. Now that you have had a storm there will be more need for corn meal and you will see the price higher than it has ever been.

GUY S. EWEN,
M.L.C., Trelawny.

Falmouth,
24th Sept., 1917.

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AUTHORISED PERSONS.

APPOINTMENTS IN SEPTEMBER.

List of Persons appointed under Law 4 of 1909—A Law in aid of the Law relating to Prædial Larceny.

Name.	Parish.	District.	Name of Agricultural Society recommending appointments and date of appointment.
David Clunis	St. Mary	Rock River	Rock River, 14.9.17
Isaac Thomas	"	"	" "
Edward Johnson	"	"	" "
Luther Josiah Hoylett	"	Lodge	Clifton-Newstead "

uis Lattouche	St. Mary	Flint River	Mahoe Hill	"
ɔert Guscott	"	Mahoe Hill	"	"
ac McKane	"	"	"	"
ɛxander Sutherland	"	"	"	"
nes Whitely	Trelawny	Browns Mountain	Waldensia	"
nuel Highman	"	Coffee Hall	"	"
lfred Motta	"	Crown Land	Troy	"
ɔn Solomon Lee	"	Troy	"	"
nuel Fulton	"	"	"	"
lliam Fletcher Green	St. Catherine	Paul Mountain	St. Johns	"
hard Joseph Willis	"	"	"	"
lter Jones	"	Bernard Road	"	"
nes Grant	"	Paul Mountain	"	"
eph Murdock	Clarendon	Johns Hall	Frankfield	"
zekiah Brown	"	Nine Turns	"	"
omas Nathaniel Brown	"	Thompson Town	Blackwoods	"
ɔn Samuel Dennis	Manchester	Coley Mountain	Mile Gully	"
lliam Robert Mullings	"	Clones	"	"
ristopher Alexander Henriques	St. Ann	Golden Grove, Steerfield and Harmony Hall	Claremont	"

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WAR GIFTS FROM JAMAICA.

FIFTIETH SHIPMENT.

Shipped per R.M.S.P. "*Quillota*," 17th August, 1917.

Donor and Address.	Gift.	Destination.
Miss Edith Clarke, Sav-la-Mar, (from proceeds of sale of Jamaica Gift Book)	10 bags of sugar, (1 ton)	For British Prisoners of war in Germany.

FIFTY-FIRST SHIPMENT.

The following War Gifts have been contributed and shipped to the United ıgdom per the Jamaica Agricultural Society, during the period ending 11th Sepıber, 1917:—

Donor & Address.	Gift.	Destination.
ss M. Symmonett, and kind friends, 99 Church St., Kingston, Jamaica	83 Garments, etc.	Clothing for Destitute Belgian Civilians, 13 City Road, London, E. C.
ndeville Ladies' Working Association, per Mrs. W. W. Wynne, Mandeville	500 Hospital Bags, 408 Garments, Cushions, etc.	Q.M.N.G., London.
ınish Town Branch Ja. . Patriotic Helpers, per Mrs. F. E. Taylor, Spanish Town	81 Garments, etc.	do
Thomas Ye Vale Ladies' Red Cross Guild, per Mrs. J. H. McPhail, Bog Walk.	128 Garments, Hospital Bags, etc.	Royal Free Hospital, Grays Inn Road, London, W.C.
ɛ Jamaica Evangelistic Mission, per Mrs. Jas. Johnston, Brown's Town	10,000 Cigarettes	North Sea Fleet.
jor M. Malcolm, Ramble	1 Barrel White Albion Sugar (230 lbs.) 1 *Cask Honey (25 galls.)*	Lady Swettenham, c/o Croix Rouge Francaise, *9 Knights Bridge, London, S. W.*
n. W. A. S. Vickers,	3 Barrels White Albion	do

Black Hill Branch, per *H. A. Campbell, Hope Bay*	1 Bundle (17) Walking Sticks,
M. E. Muirhead, Mandeville	345 Walking Sticks *86 Crutches, equal 6 bundles*

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COMMENTS.

SISAL HEMP.—German East Africa had become a very important producer of fibre, just before the war broke out. In 1915 it exported in sisal fibre alone a value of £750,000, and the production was growing at a very rapid rate.

No British colony produces fibre suitable for making twine except New Zealand, which only furnishes 20,000 to 30,000 tons out of the 150,000 which the world requires.

Most fibre is produced in Mexico and the Philippines, but German East Africa was fast becoming a valuable source of supply of this necessary product.

Very little sisal fibre is used in the United Kingdom, but London merchants bought *largely from* Hamburg, and sold to the binder twine manufacturers in the United States.

Fighting still continues in corners of German Eest Africa but practically this immense and valuable territory is now in the hands of the British. The Germans spent vast sums in developing this colony *in which there should be room and good opportunity* for many thousands of British settlers after the war.

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PEANUTS. We have a supply of seed which we shall be glad to distribute in small lots to School Gardens which can make the best use of them and return us seed from the crop for further distribution. We should be glad to hear from teachers who are desirous of planting *now*. We have both native and imported seed.

———:o:———

SEED COCONUTS.—There will likely be a great demand for Seed Coconuts. We are sorry to say that the plantation from which we have for many years been supplied selected seeds nuts from selected trees *has lost 90 per cent. of the magnificent coconut trees on the* property. The nuts set out to sprout however have not been damaged.

On this property rice cultivation was tried and is the only crop that has not suffered. It will be a good asset. Rice is a quick crop as has been often pointed out in this JOUNNAL and is again pointed out in this issue. There are large areas of morass land on which magnificent crops of rice could be grown next year if the matter of rice growing was only tackled systematically and immediately. The subject is now of vital importance.

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NAPHTHALENE—We regret that owing to the great demand our *supply of Naphthalene ran out.* *We purchased all that* was to be had in town and sent for more to the United States. It will be probably a good time before we get any if we get it at all as this is one of the chemicals that is scarce

incident at Green Island in Hanover. One of the brother soon as he became certain that there was to be a real nurrican went into his field and cut down the yam sticks with his machet laying them down gently. Not even a leaf was blown off. He h since put up his sticks again, and his yams are as fresh and vigoro now as they were before the blow. The other brother managed cut down 60 sticks when the rain drove him out. They have bo decided to do this as a hurricane precaution in future. This is good tip to yam planters. (Extract report Agricultural Instructo

:o:

CHINA BANANAS.—The best insurance agaiust hurricanes is r to go out of bananas entirely and into sugar cane but to substitu in part the dwarf or Cavendish banana, locally called China, f the tall banana. These have again proved themselves nearly hur proof. Surely the shipping of these safely to Europe should not dfficult to overcome, and as for the United States there should no trouble at all on a 5 days voyage. They are wanted in Brita and as these bananas are better eating than the large bananas the coarse Central America fruit, there should not be much troul in the people of the United States taking to them. Of course suc ers would not be available all at once; and it would be a matter 4 or 5 years breeding up plants before anything like substant substitution of the present bananas could take place Such subs tution to the extent of 25 per cent at least ought to take place.

Once more we repeat the advice to everyone—plant a patch China bananas. A good many here and there we find did take t advice given after such storm, and those may still have their gre and ripe bananas when others will have none for nine months.

:o:

HURRICANE.—Rarely in the experience of even old experienc agriculturists who had travelled a great deal in the past and st travel a good deal about the Island, and so are not limited in th experience and observations to certain districts, had the varied cro of Jamaica looked more promising for bountiful results than in t year which would have followed from 31st August—the year bei dated from the time of the last hurricane. Special effort had be made in every direction, but particularly in the extension of fo crops by small settlers. The high prices and limited supplies imported foods, had justified and proved to them the contin insentence of this journal that the first duty of a small settler, ev in normal times, was to grow as much as possible for his o household; and the demand in local markets stimulated further p duction to supply the markets.

When a hurricane destroys or damages local crops, to a lar extent especially the more slow growing kinds, it takes a year re-produce these crops, and even the quickest growing crops wh take 6 months to mature cannot be produced in that time afte storm, because they cannot be planted any time, as townspeo imagine, but have to wait on their seasons.

We have been passing through a period of stress and anxi because of the war; there has been interruption of trade and ind tries and disruption of family life caused by the call for men, mor

hurricanes in three successive years, each cau least one million and a half pounds sterling. Yet but for this blow we were cheerful and undaunted. Our prospects were goo spite of the embargo on shipping coffee and rum and a half emba on cocoa to the United Kingdom. The present loss in bana therefore comes more severely on us' than ever before ; it is in a double sense indeed; the loss of a profitable article of ex which was wanted and for which ships were provided, and the of a home food supply which in itself could have placed us bey the fear of want. The loss of foodstuff in bananas is a ter blow, hardly realised by those who do not go into food mat minutely. It makes' the call on other vegetable foods one-t more than what would have been had bananas and plantains b available, perhaps more, for if bananas were very plentiful pe would probably have eaten more of these than ordinary, outlook for local foodstuffs before the storm was cheerful; now admit we are, if not doubtful or fearful, very anxious.

Still it only needs organized effort and a well ordered syster enable us to produce two standard "belly filling" (excuse the p but expressive term) foods almost *ad lib*, and these are sweet p toes and cowpeas, both of which together make a fit and effic combination. A call should now be made on every proprietor of l to grow some crops and these two are the easiest for lowlands uplands, dry or wet districts. Surplus sweet potatoes can be dried stored and cowpeas keep well if need be and now that so many h equipped themselves with corn mills, it is easy also to grind cowpeas and grind the dried sweet potatoes into flour. Peaser can be made into a most nourishing porridge and can be used part in making puddings, dumplings and bread.

Between next spring and harvest time in temperate clima there will again be a shortage of food anc in view of this Jama should be self supporting for cheap essential foods—such as will g sufficient and efficient nourisoment, although luxuries may not forthcoming.

(Refer to stock notes re Animal Food.)

The following paragraph shows what the world's situation likely to be ;—

The "Breeders Gazette," Sept. 27th. 1914.

OFFICIAL WARNING OF FOOD SHORTAGE:—"The food administration of United States has found that it has been figuring out wrong an sugar. Ins of a bountiful supply there is a distinct shortage that can only be made up by ing. We have to supply our allies, and their rations now have been reduced small point. England, for instance, is limiting its people to an ounce a da hardly more than a heaping teaspoonful. France also must have more su While the fixing of the price on sugar will mean that consumers here will not more than 8 1-3 cents per pound, we can not afford to be generous or wa ful in its use. Every pound we save can be made of invaluable service abr

"The wheat situation is growing more appalling every day. Our Europ allies, excluding Russia, are short now 200,000,090 bushels of their normal ply. They need 300;000.000 bushels of wheat that they won't get. South Afr India and Australia can not help, even though they had great crops, on acc of the shortage in ships and the submarine dangers. Right now there is v little wheat moving. If our allies are to have wheat flour for bread, even below their actual requirements, we will have to make daily sacrifices or ev table in this country.

"The meat situation is also bad. At the conference in Washington Friday between the packers' committee and the buyers of the allied governm it was made known that the demand for hog products is far beyond what

can supply. Not only are the daily supplies being taken up but our storage supplies are being cut into at a heavy rate.

"Unless there is a big change this country will be in a difficult position as regards live stock. Breeding stock is being killed because of high feed prices. It must be remembered that the herds of Europe have been practically slaughtered and that when the war is over we will not only have to supply them with a great percentage of meat products but also with breeding stock, so that they may again develop herds. It means that meatless days in this country are absolutely assured, not as a fad but because absolute necessity will require."

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LEAFLETS—HURRICANE LOSS.—The articles headed "What is tc be Done in St. Mary," and "What is to be Done in St. Andrew & W. St. Thomas," were issued to these places as leaflets, copies being sent to the Agricultural Instructors and the Branch Societies for distribution.

The article on the Growing of Food Crops, which dealt witl the growing of "Irish" Pototaes, Sweet Potatoes, Beans, etc, written by the Secretary were also issued as leaflets.

In addition to these, a placard on how to deal with coconut trees injured by the hurricane, prepared by the Instructor Mr. Wates has been posted up in St. Thomas and Portland. We quote from thi placard as follows :—

1. Trees from 1 year to 3 years should be raised up, staked firmly an earthed up.
2. Trees from 3 years up to 5 years with just formed base should be partl raised and supported on blocks of coconut trees, the underneath limbs trimme off and the root covered with earth.
3. Bearing trees whose hearts are badly twisted, turned over o themselves, wrapped up by the broken limbs or badly bruised, should be cut o below the point of injury, or trimmed so as to release the heart and if possibl given a dose of Bordeaux Mixture containing also Arsenate of Lead.
4. Failure to do this will often result in the injured trees dying are becom infected with Bud Rot, and attacked by boring weevils.
5. Every damaged leaf on a coconut tree should be cut off smooth belo the point of injury and the cut carefully tarred.
6. Save what coconuts are left if you are wise.

—:o:—

HURRICANE LOSS.

The following is as nearly as exact as possible of the loss suffere in East Portland :—

From Hector's River to Kensington a distance of about 7 mile

Fowls killed	1522
Houses totally destroyed	901
Houses partially destroyed	203
Outbuildings totally destroyed ..	628
Outbuildings still standing but badly damaged	65
Breadfruit trees destroyed	2470

Goats killed	..	..	..
Donkeys killed	..	..	..
Cows killed	..	..	..
Mules killed	..	..	..

COCONUT TREES BLOWN DOWN.

Manchioneal	..	..	.. 38,882
Kensington	..	..	. 16,850
Hector's River	..	..	.. 15,766
			71.498

At present these trees would be capitalized at £2 a piece.

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BRANCH NOTES.

DARLISTON (Westmoreland.)—The regular meeting of this branch took place on the 14th September in the Enfield Schoolroom. Present: J. W. Mennell, Esq., President; C. J. Stewart, Vice-President; R. C. Somerville, Agricultural Instructor; R. J. Blake, Secretary, and 11 other members. The minutes of the previous meeting were read and confirmed. Correspondence was also read and dealt with. The following prizes were awarded to the winners in the recent Potato Growing Competition: 1st, 7/6, to Mr. C. McKenzie; 2nd, 6/6, to Mr. S. Philip; 3rd, 6/-, to Mr. C. Cooke. The donors were: Messrs. J. W. Mennell, R. C. Somerville, J. C. Whyte, and T. O. Senior, each of whom gave 5/-. Mr. C. J. Stewart, delegate to the Half Yearly General Meeting, then read his report. Mr. Somerville then addressed the meeting, impressing on the members present the necessity of planting foodstuffs continually. Especially during October, he said such crops as yams and sweet potatoes should be planted in order to meet the months of scarcity next year. He also referred to the planting of Irish potatoes and advised members to order seeds now and plant on as large a scale as possible. He finally reminded them of the approach of the vegetable season, and of the necessity of being in time in the matter of procuring seeds. A resolution was next moved and seconded for the holding of a Social Agricultural Evening, in order to provide funds for prizes for another Potato Growing Competition It was unanimously carried. Mrs. Walcott promised 8/- to the same fund. Notice of Mr. Ritchie's visit to this end was also given. The Instructor then gave notice of his intention to start an agricultural class for boys of from 12 years and upwards, to be held on Saturdays. At these classes he purposed to teach practical and theoretical agriculture, practical mensuration, keeping of accounts, etc. He was heartily thanked for his useful talk. The meeting then adjourned.

R. J. BLAKE, Secretary.

FAR ENOUGH (Clarendon.)—A special meeting of this Branch was held in the Good Hope Schoolroom on the 22nd August. There were present, the Instructor, four visitors, the Secretary and 11 ordinary members. The President having resigned, and left the parish, and the Vice-President being absent, Mr. John F. Robinson was asked to take the chair. After the reading and confirmation of the minutes of the last meeting, matters arising out of them were dealt with. Correspondence was read and discussed. The acting Chairman forcibly impressed on members the vital importance and necessity of keeping this Branch alive. Mr. Schliefer then addressed the meeting, and gave a very instructive and interesting lecture. He urged upon the Society the necessity for greater activity in the cultivation of more food stuffs, potatoes, yams, cocoes, cassava and corn, and the rearing of more domestic animals, pigs, goats, fowls, etc., and exhibited a very fine sample of hybridized corn grown by him, and also explained the matter of the May Pen Grain Show and Fair,

which has been arranged by the May Pen Branch to come off at May Pen on the 27th September, and invited members to compete at that show. He was accorded a hearty vote of thanks. The Hon. J. A. G. Smith gave an instructive speech, and agreed to give £1 1s. as a prize to any member of this Branch, for the best improved holding. A vote of thanks was accorded him. The election of officers for the current year thereafter took place which resulted as follows: Mr. John F. Robinson, the acting Chairman, was elected as President, and the Secretary Treasurer and Vice-Presidents were all re-elected. Other matters of minor importance were dealt with and a very profitable and most enjoyable meeting terminated with the singing of the National Anthem. J. C. ROBERTSON, Secretary.

RED HILLS BRANCH (Upper Clarendon.)—A meeting of this Branch was held on the 4th September, at which 11 members besides the Instructor were present In the absence of the President and Vice-President, the Instructor presided. The Authorized Persons presented favourable reports. The question of the Moss Hill Road was again deferred, through the absence of the members most directly concerned The Instructor spoke at length on the Grain Show to come off on the 3rd October, and Committees were appointed for working out details connected therewith. The singing of the Nattional Anthem brought the meeting to a close.

JAMES M. WATTS, Secretary.

BLACKWOODS (Clarendon.)—The monthly meeting of this Branch was held on September 13, 1917. Present, President, Instructor, Treasurer, Secretary, and a large number of other members. Minutes of last meeting were read and confirmed The grindstone was reported bought and put up. Rules governing its use were drawn up, and other matters in connection with it settled. The May Pen Show was next discussed, the Instructor giving very valuable suggestions as to the sending of exhibits, etc., and various matters in connection with it were settled. The Instructor spoke on Prize Holdings and reported that he had got a prize for this Branch and hoped to get some more. A hearty vote of thanks was accorded the Instructor for the interest displayed in the Branch and for his very valuable instructions. The meeting closed with the National Anthem. P. E. CAREY, Secretary.

HOPEWELL (Hanover.)—The regular bi-monthly meeting of this Branch was held in the Bethel Schoolroom on 7th September. Present, G. E. Melville, Esq. President, in the Chair; R. C. Somerville, Instructor, and 17 other members. Minutes of last meeting were read and confirmed. Mr. H. J. Charley said he was getting a motor boat and a number of lighters and would buy canes at Flint River Wharf at 14/- per ton in the boat. His contract would be for 4 years, he would advance money according to securities available. The Instructor approved of the scheme and it was agreed to fix a day to have contracts signed; the Instructor promised to *get permission to spend a week in the district and interview the intending growers of* cane previous to the signing of contracts and also to instruct them how to plant canes Mr. Charley was thanked and left the meeting. The President read the scheme of dealing with praedial larceny drawn up by himself and the Secretary. After much discussion, the Secretary was instructed to write to Mr. John Barclay as to what had been done *re* papers sent up from this Society dealing with handling of praedial larceny. The Instructor gave a report of the half yearly meeting, and also gave His Excellency's message to the people *re* food planting. Mr. G. E. Samuel handed in £2 14s., being amount raised at the Concert held in the Bethel Schoolroom for the purpose of raising funds to buy a larger corn mill. The Secretary was instructed to write Mr. John Barclay *re* a new mill costing £5. The Instructor and Mr. E. E. Melville offered a cash prize of 5/- each for the best lot of potatoes raised from 5lbs. of seeds. The Secretary was instructed to order one barrel of potatoes. W. HOLLAND RIGG, Secretary.

CASTLETON (St. Mary.)—The usual monthly meeting of this Branch was held on the 28th August, Mr. S. C. Pickersgill, Vice-President, presiding. After the usual preliminaries the delegate to the last Half Yearly Meeting of the Parent Society Mr. S. C. Pickersgill, presented his report. The following resolution was moved by the Secretary and unanimously carried: "That owing to the serious inconvenience and loss felt by small stock owners and breeders in the remote districts from time to time principally due to lack of obtaining veterinary advice, this Branch take[s] ... respectfully ask the Board of Management of the Parent Society

to consider the necessity of sending a certain number of responsible men recommended by Branch Societies each year to Hope to receive instruction in castration, drenching and general local treatment of stock from the Government Veterinary Surgeon, such instructions to be given free; the recipient of course, bearing his personal expenses." The Treasurer gave in his report, which was accepted.

A. PICKERSGILL, Secretary.

RICHMOND (St. Mary.)—The regular monthly meeting of this Branch was held in the Richmond Road Schoolroom on the 29th of August. There were present, the 1st Vice-President, Mr. W. R. Thomas, C. Gregg, Assistant Secretary; T. Davis, Treasurer, the Secretary and eighteen other members. The minutes of the last meeting were read and confirmed, and matters arising therefrom dealt with. Two new members were elected, one of whom was H. B. Wolcott, Esq. (as an honorary member), and in the absence of the President, he was asked to take the Chair. Correspondence was read and dealt with. Authorized Persons then gave their report. The delegate to the Half Yearly Meeting, next gave his report. It was resolved that H. B. Wolcott, Esq., be nominated as President of the Society (in place of C. H. Abrahams, Esq., who on account of removal from the parish, had to resign his position as President of the Society) in the next meeting. It was also resolved that the making of jippi jappa hats be carried on as an industry by this Branch, to be brought forward at the next meeting. H. B. Wolcott, Esq., then gave a very interesting address on "Thrift and Economy." Mr. C. Gregg promised to read a paper at the next meeting on "What is an Agricultural Society." The next meeting was fixed for the last Wednesday in September. The singing of the National Anthem brought a most interesting meeting to a close.

W. M. HARRISON, Secretary.

ALBANY BRANCH (St. Mary.)—The regular monthly meeting of the Albany Branch Society was held in the Friendship Baptist Chapel on the 5th inst. There were present: Messrs. L. S. Clarke, Vice-President, in the Chair; W. Cradwick, Instructor; J. L. Saunders, R. S. Young, Secretary, and twenty-four other members. A new member was elected. It was agreed that the boar be sold for best price, Messrs. Clarke and Young to see to its sale. The Secretary was instructed to send a resolution to Mr. Barclay, asking that the half-yearly meeting be held for two days instead of one; the Secretary to send circulars to other branches of the Instructor's district with regard to the resolution. It was agreed that the Society purchase a corn mill for the use of its members. Mr. L. S. Clarke to be the custodian. Mr. Cradwick promised to order same, but the bill to be sent to the Secretary. There were seven Authorized Persons present, and one sent in a written report. Mr. Cradwick addressed the members. He emphasized the necessity for still greater effort in planting foodstuffs. The war, he said, might not be over for a few years yet, and shortly there might not be enough ships for bringing us foodstuffs. Mr. Barclay, he said, had written him asking him for the opinion of the Branches on the matter. There was a great increase in planting, but still more was necessary. The Chairman said that in his opinion much more planting was done than formerly, but to the detriment of the banana cultivation, and he thought that with the revival of the banana industry, the people may turn their attention into that channel. Mr. Cradwick suggested that the Society hold a competition for the best cultivation, banana not to be included. This was agreed to by all. A Committee consisting of Messrs. Cradwick, Chairman, R. S. Young, Secretary, L. S. Clarke, J. L. Saunders and David Campbell was appointed to carry through the suggestion. The meeting was brought to a close with the singing of the National Anthem.

R. S. YOUNG, Secretary.

EPSOM (St. Mary.)—The monthly meeting of this Branch was held on the the 5th September. The Rev. E. J. Touzalin, President, presided. Minutes of last meeting were read and confirmed. Members were asked to attend the meetings regularly, and to make good use of the Journals. It was resolved that a grindstone be procured for the use of members. This was unanimously agreed to, and the President offered to negotiate for a suitable one. It was decided to have the stone set up in Mr. Marshall's yard, and the handle kept by Mr. Nelson. It was proposed that in order to augment the funds of the Branch, members might contribute a small sum at each monthly meeting. Being "Banana Day," the attendance was not so good as usual. The meeting was brought to a close with the singing of the

CENTRAL ST. MARY.—The regular monthly meeting of this Branch was held the 6th September. Present were: Rev. F. W. Core, President; eight other mbers and the Secretary. Apology for absence from Wm. Cradwick, Esq., was eived. The minutes of July 5th, were read and confirmed. Correspondence s also read and dealt with. The proportion of food crop in comparison with mer years was discussed, and the meeting was of opinion that the increase this ar is 100%. The result is that stealing is not so rampant as the early part of the sent year. The Secretary was advised to write all the members of the Branch ting that the subscriptions be paid in as early as possible. Next meeting to be ld at Clonmel. Meeting adjourned with the singing of the National Anthem.

F. A. WILLIAMS, Secretary.

MT. REGALE (St. Mary.)—The regular meeting of this Branch was held or e 10th September, at which 16 members were present. Two names were addec the roll. Read letter from Mr. Cradwick *re* the amount of foodstuffs plantec mpared with last year. The Authorized Persons still complained of the diffi lties experienced in dealing with prisoners as they are without handcuffs. Three ithorized Persons present gave report of work done. It was reported that the ndstone had ceased to be of use, but as there is not sufficient money in hand 'angements for getting another must be deferred.

B. THOS. ATKINSON, Secretary.

MARLBOROUGH (S. Mary.)—The regular monthly meeting of this Branch wa ld in the school, September 13th. Present: Messrs. Z. Ffrench in the Chai E. Ford, 2nd V.P.; 14 members, one visitor, and the Assistant Secretary. Minute previous meeting were read and confirmed, and matters arising therefrom deal th. Other important matters were also dealt with, and Authorized Person esented their reports, and a new one was nominated.

A. DIXON, Assistant Secretary.

TOWER HILL (St. James.)—The usual monthly meeting of this Branch wa ld in the Tower Hill School on the 6th September. There were present: Messr Briscoe, Instructor; G. S. McFarlane, President; H. R. Tharpe, V.P.; W. Johnso cretary, 25 other members, and 3 visitors. The minutes of the last meeting we ad and confirmed, and matters arising therefrom discussed. A discussion on th gar question was led by Mr. H. R. Tharpe followed by the Instructor, who em iasized the importance of cane cultivation by the small settler. The Instructor ldress dealt with planting seasons and the necessity for planting as much foodstuf possible. There was an exhibition of cornmeal by Mr. H. R. Tharpe; groun a mill which was about 60 years old. This mill was not in use for over 25 years id has been cleaned, put up, and is now in working order. It produces meal ie as that bought at the shop. Report on the corn competition followed. A pri 2/6 offered at the last meeting by Mr. Tharpe for the best six ears of corn broug y any member. had to be divided between two members, viz., Messrs. Dewar an ennett, there being a tie. The National Anthem brought the meeting to a close.

H. R. THARPE, Reporting Secret

LETHE (St. James.)—The regular monthly meeting of this Branch was held eptember 8. Present, the Vice-President, eight members, the Agricultural Instructo ur visitors and C. M. Scott (jnr.) acting Secretary. As arising out of the minute Ir. Briscoe informed the meeting that the Lethe Spring will shortly be taken ov y the Parochial Board. He also addressed the meeting enlarging on the necessi plant so as to be able to feed ourselves. Mr. E. Johnson, of Miles Town, gave ecture on Vanilla Culture. One of the visitors became a member. Three memb aid in their subscriptions. The roll was called, and after the singing of the Natio nthem, the meeting adjourned till October 13, 1917.

(MISS) S. M. VASSALL, Secretary.

PORUS (Manchester.)—The regular monthly meeting was held on the 3rd Se mber. Members present: The President, S. A. Hendrick, Esq.; Rev. and H W. H. Eason, Rev. Somerville and Mr. W. A. Morgan, Vice-Presidents; the

The minutes of the previous meeting were read and confirmed. The citrus industry of the district is threatened by the rapid spread of the black-fly disease. This was again brought to the notice of the Instructor. Much regret and disappointment were expressed at the manner in which the Board of Management dealt with the land question submitted by this Branch at the last Half Yearly General Meeting. (having regard to the unsatisfactory state of the tenancy system in this country and the inducement offered abroad for our people.) An instructive address was given by the Instructor on the cultivation of Irish potatoes. He advised that members try the fall crop as he was convinced that the potatoes would do better in and around Porus. The President though he approved of the Instructor's advice, suggested that members should try even one bed of sweet potatoes, subjected to the same treatment as the Irish potatoes. From his practical experience, he believed that sweet potatoes will give a profitable result. The meeting then adjourned till the first Monday in October. C. ROWLAND, Secretary.

PATRICK TOWN (Manchester.)—The regular meeting of this Branch was held on September 4tb, 1917. There were present: Chas. Angell, Esq. (Chariman); M. H. Morgan, Esq., Vice-Chairman); 8 members, and the Secretary. The minutes of the last meeting were read and confirmed. The correspondence was read and dealt with. Mr. A. G. Benjamin next congratulated the members on the large yield of their corn crop and commended the efforts that they were again putting forward to plant out a fall crop. The Treasurer was asked to purchase a corn mill from the funds of the Society for the use of members. One member pointed out that Orange Oil was in demand and buyers went through districts offering the people 4/- per bottle for oil to be delivered in October. It was agreed that no member should receive any money under such conditions; but that each member would get his oil ready when the fruits were mature and sell in the best market. Mr. M. H. Morgan our Vice-President, suggested that a report of our meetings be sent to the newspapers. It may influence some who may happen to read it to join us. This was agreed on and the Secretary promised to do so. The meeting then adjourned.

A. G. BENJAMIN, Secretary.

BELVEDERE (!Portland.)—September 7, 1917. At the meeting to-day, there were present: Mr. T. G. Dawkins (President); J. Vassall (2nd Vice-President); J. Taylor (Treasurer); L. Johnson (Asst. Secretary);E. Whorms, Wm. Hinds (a visitor) and the Secretary. The minutes were read and confirmed. Correspondence was read and dealt with. A new member was elected. It was thought that a Food Competition might be arranged later on for the Spring. After dealing with matters of minor importance, the meeting adjourned.

NONSUCH (Portland.)—The regular monthly meeting of this Branch was held in the Nonsuch Schoolroom on September 7th, 1917. Present: Messrs. J. N. Brown, President; L. A. Wates, Instructor; Chas. Scott, Vice-President; Jeremiah Anderson, Treasurer; A. E. Wright, Secretary, and 23 members. The minutes of the last meeting were read and confirmed. Matters arising from the minutes were dealt with; 13 members purchased cutlasses, which were previously ordered by Mr. L. A. Wates. Authorized Persons presented their reports. Mr. Wates next spoke of his appreciation of the steady progress of this Branch. He was very pleased to see how much enthusiasm is being shown by the members in cultivationg on a larger scale. He then dealt, among other things, with the still further improvement of the Branch and the sowing of seeds to start early planting in order to meet the Hotel Season. The members were urged to get suitable seeds from the Parent Society. A vegetable competition has been suggested which will be fully decided upon at the next meeting. The members agreed to get available plots and to start at an early date. Plans were arranged to get a Corn Mill for the Branch. The need of this has been long felt by many. The Instructor brought some rice which he gave to the members to experiment upon. This was highly appreciated. The mode of its cultivation was fully demonstrated. Six new members were enrolled. The meeting was terminated with the National Anthem. A. E. WRIGHT, Secretary.

BIRNAMWOOD (Portland.)—The usual monthly meeting of this Branch was held at the Schoolroom, on 8th September. Present: Mr. R. Paulwell, V.P., in the

Chair, four members, and the Secretary, Mr. S. L. N. McGann. The minutes of the previous meeting were read and confirmed, and matters arising therefrom dealt with. The delegate to the Half Yearly Meeting presented his report. Two new members were elected. The National Anthem then brought the meeting to a close.

O. M. MALONY, Asst. Secretary.

HOPE BAY (Portland.)—The regular monthly meeting of this Branch was held in the schoolroom at Hope Bay on 13th September, when fourteen members including the Instructor were present. The Instructor spent the greater part of the day carrying out demonstrations in certain fields. A Show in connection with the Society will be held on August 1st, 1918, and the committee appointed to carry out the arrangements met in the afternoon prior to the regular meeting. The subject of badges, handcuffs for the Authorized Persons of this Branch was discussed fully. It has been agreed on to supply the Secretary with a duplicating book. The matter of sending surplus foodstuffs for the poor of Kingston was discussed, and it was finally decided on to have same despatched on the 20th September. Mr. E. E. Gray promised to send his cart around to convey the goods to the railway. The Instructor promised to be present to see that the things are properly put up. The Instructor said that the Parent Society had vegetable seeeds as well as broom corn seeds in stock, and these can be obtained if the members wish any to purchase. A few broom corn seeds were given to the members present. Mr. Gray called to the attention of the meeting the havoc that was being wrought by pests on citrus fruits and trees, and it was agreed on that communications be sent to the Parent Society on the matter.

J. D. WHITELY, Secretary.

BANGOR RIDGE (Portland.)—A meeting of this Branch was held on the 20th September. There were present Messrs. S. Haase, presiding, eight members and the Secretary A new member was elected. The minutes of the last meeting were read and confirmed. The delegate to the last Half Yearly Meeting presented his report which was adopted. Much reference was made to the present alarming proportions of Praedial Larceny; Continuation Schools for children from 14 to 18 years of age, a stricter observance of the Vagrancy Law, establishment of Vigilance Societies and an increase of rates of wages were considered factors which would contribute to a better condition of things. The Secretary gave a lengthy address on the Food Problem for the present and immediate future. A vote of thanks was tendered the Secretary, and the National Anthem brought the meeting to a close.

B. A. CRAWFORD CASE, Secretary.

AEOLUS VALLEY (St. Thomas.)—The usual monthly meeting of this Society was held on the 10th September with Mr. Enos Stewart, first Vice-President (in the Chair), and eighteen other members present. The minutes of the previous meeting were read and confirmed. A circular was read from the Secretary of the Parent Society referring to a recently published booklet on Infectious Plant Diseases, six copies of which had been sent the Branch. The Secretary pointed out that since no holding was immune from attack, every member who helped a neighbour to keep out disease from his holding was doing a service to himself. Fourteen applications for copies were received. Mr. Richard Barnett, who was delegate to the last Half Yearly Meeting of the J. A. S., received the thanks of the Branch for his very able report. The Branch not hearing anything further from the Lower St David's Branch, and their proposed February Show next year, decided on quiet preparation. It was also decided to sell the ram, as it was not receiving patronage and invest the proceeds in some other venture, which at the suggestion of the Secretary might be a corn mill or a corn sheller. The matter will be fully discussed at the next meeting The meeting then adjourned.

C. A. CORNIFFE, Secretary.

BATH (St. Thomas.)—The regular monthly meeting of this Branch was held in the Bath Schoolroom on the 13th September There were present: Messrs. M. C. Beckford, President; Geo. R. Groves, 1st. V.P.; R. Evan Watson, Secretary, and seven other members. Minutes of last meeting were read and confirmed. One new member was elected. The pamphlets on "How to Identify Infectious Plant Diseases," were distributed, and were heartily appreciated by all present. The Secretary was instructed to write our Instructor, asking him to continue his visits to our meetings. On the suggestion of Mr. Whittle, it was decided that the Secretary [illegible]

Business for next meeting was then fixed. It was decided to discuss the contents of the pamphlet "How to Identify Infectious Plant diseases. After the Roll Call, and singing of the National Anthem, the meeting adjourned.

R. EVAN WALTON, Secretary.

BUNKER'S HILL (Trelawny.)—The last regular meeting was held in the Unity Schoolroom on 30th Augus . In spite of the very inclement weather, there was a fair attendance consisting of the President, Secretary, 8 other members, Mr M. Rennie, Agricultural Instructor, and 2 visitors. After the confirmation of the minutes, a resolution of regret at the demise of Mr. Thos. Clarke, one of the Society's members, was passed. The matter of the appointment of new Authorized Persons for the Branch was brought up, and dealt with The Instructor gave valuable hints on corn growing in the district and strongly urged members to plant as the demand was great and the prices good. He again ou lined and explained the Irish Potato competition and expres ed the hope that many would go in for it The President at this point gave notice of his resignation to everyone's regret. The roll call, followed by the singing of the National Anthem, closed the meeting. J. E. GALE, Secretary.

WARSOP (Trelawny) This branch held its monthly meeting on the 5th September. Present: The Instructor, Mr Rennie, the President, and the Secretary; but the evening being wet the attendance was small The minutes were read and confirmed. Correspondence was read and dealt with. Mr. Woodfin was asked to read from the Agricultural Journal, the rules relating to the Potato Growing Competition for Trelawny, after which the Instructor gave some valuable hints on the above and advised all present to compete. It was moved and seconded, that a committee consisting of the President, the Secretary and Mr. Woodfin be appointed to draft a letter to the Parochial Board at Falmouth, pointing out the dangerous state of Nos. 121 and 122 Parochial Roads of Warsop, and ask that attention be given to them now. The state of those roads stands in the way of the Industrial and educational progress of these districts. After the agenda for next meeting was drawn up, the meeting was brought to a close. U. K. WALTERS, Secretary.

DEESIDE (Trelawny.)—The regular monthly meeting of this Branch was held in the Hastings Schoolroom on the 19th September. There were thirteen members present, besides the Secretary and the Instructor, Mr. Rennie. Mr. J. P. Morgan, Senior V.P., was called to the cha r. The minutes of the last meeting were read and confirmed. The Secretary submitted copies of a pamphlet on Plant Diseases, also copies of rates for shipment of ground provisions by the Railway, which had been sent by the General Secretary These were afterwards distributed to the members. Mr. J. Evans, the keeper and caretaker of the billy goat, reported that the animal was in very poor health It was believed that this was due to the wet weather and a small amount was voted for the purchase of corn and Thorley,'s food and the erection of a shed with a view of improving his condition. The Instructor spoke at some length on the Irish Potato Competition for which arrangements are being made. Eight members entered for it and it was decided to order four barrels of potatoes from Mr. Barclay. A discussion on the price of agricultural tools was brought up when it was pointed out that cutlasses were difficult to obtain notwithstanding the exorbitant prices at which they are sold. The Secretary was directed to write the General Secretary on the matter. The subject of corn growing was introduced by the Instructor, and evoked a good deal of discussion. A few of the members complained of pests that destroy the young plants at this season of the year by attacking the roots. Mr. J. P. Morgan was unanimously elected to the vacant office of President. Other minor matters were dealt with, and the meeting terminated with the singing of the National Anthem.

CLIFTON NEWSTEAD (St. Ann.)—The monthly meeting of this Branch was held on the 3rd September. Present: Mr. Cradwick, Secretary, Assistant Secretary, and 21 other members. Correspondence was read and discussed Pamphlets were distributed *re* Plant Diseases by Mr. Ashby. These the Instructor explained in brief. It was suggested that a corn mill be ordered, cost, £5. The Instructor urged the planting of vast quantities of sweet potato in order to effect a desirable balance in the circulation of food stuffs, pointing out that potato flour could conveniently be used with equal proportions of wheat flour in the manufacture of good bread. Proposed a Competition in cured tobacco which would take place in the

PEDRO (St. Ann.)—The annual meeting of this Branch was held on the 17th ptember, at which were present, Messrs. July Simpson, presiding; 13 members, e Secretary, and several visitors. The minutes of the previous meeting were ad and confirmed, after which the election of officers for the ensuing year took place, sulting in the re-election of all the old ones and the addition of Mr. Ernest Beckford, a Vice-President. The time for holding meetings was fixed for the 3rd Saturday each month at 12 o'clock noon. Authorized Persons gave an interesting account their work. An agenda was arranged for the October meeting at which it is conlently expected that Mr. Cradwick will be present. The National Anthem and oxology closed the meeting. MILFORD A. HARVEY, Reporting Secty

GUY'S HILL (St. Ann.)—The regular monthly meeting of this Branch was held 1 the 20th September, at St. George's Schoolroom. There were present: W. H. /estmoreland, Esq., J.P. (President); W. Cradwick, Esq., Agricultural Instructor, ghteen other members, Secretary, and one visitor. The minutes of the last meeting ere read and confirmed. The Secretary reported that he had applied for and otained forms needed by Authorized Persons. Following on the discussion at the st meeting, it was decided that a grind stone 24'' circumference, be purchased r the use of members. The Instructor informed the meeting that fifteen shillings as the price last quoted for this size. The President kindly promised to purchase e stone at the same time as some things for himself and save the Society cartage. he Instructor generously offered to obtain and bring what tools he could for treating)coa. Correspondence was read and dealt with. The Secretary, who was delegate the Half Yearly Meeting in July last gave a report of the meeting for which a ote of thanks was accorded in. The Instructor then gave an address *re* the food roblem, etc. W. E. WATSON, Secretary.

SOUTHFIELD (St. Elizabeth.)—A regular meeting of this Branch was held on eptember 21st, . Mr. R. Speid presided in the absence of the President, and the ther Vice-Presidents and Mr. H. W. Lynch, Agricultural Instructor, were present. The umpkin seeds kindly sent by the General Secretary were distributed among all the embers present. The pamphlets on "Plant Disease" were before the meeting. t the request of the Instructor, the Society agreed to participate in the smal local iow of the Nain Branch on New Year's Day. The meeting discussed the yam, orn and vegetable competitions to come off soon, and seeds will be given free to the idies who intend to enter for the vegetable competition. The Instructor advised e members to cultivate Irish potatoes, and the Chairman and Secretary agreed o order a barrel. An interesting meeting then adjourned.

J. J. MILLER, Secretary.

PORT ROYAL MOUNTAINS (St. Andrew.)—The monthly meeting of this Branch 'as held in the Mt. Fletcher Schoolroom on the 22nd September. In the absence f the President, Mr. Thomas Jackson took the Chair. The attendance was small ue in part to the inclemency of the weather. The minutes of the last meeting 'ere read and after an amendment were confirmed. During the reading of the iinutes, the President entered and took his seat. Matters arising from the minutes 'ere dealt with. The members discussed at length the crisis at which we had rrived relative to foodstuffs and to facilitate the situation the Branch should secure s own corn mill. All agreed and steps are being taken to do so. The matter was ut into the hands of the Secretary until next meeting. It was brought to the notice f the members that the Authorised Persons should always attend the meetings f the Branch and make reports. Mr. Jacob Hall reported the Society's Billy-goat o be now in good form. The President impressed the necessity of still more extensive ultivation. The meeting then adjourned till October 27th.

N. A. GREY, Secretary.

Notes, for which there is no space, have also been received from Waldensia, Vakefield, Jackson Town (Trelawny); Broadgate, Free Hill, Preston, Baxter's Aountain (St. Mary); Swift River, Sherwood Forest (Portland); Somerset (St. Thohomas); Green Island (Hanover); Bethel Town, New Roads (Westmoreland); anta Cruz (St. Elizabeth); Benbow (St. Ann); Mile Gully (Manchester); Aguanea (St. Andrew); Mocho and Brixton Hill (Clarendon).

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